

CONSTRUCTION PLANS FOR
ADDISON RAWHIDE CREEK BASIN
DRAINAGE AND ADA IMPROVEMENTS
FROM BROOKWOOD LN
TO WATERSIDE CT
TOWN OF ADDISON
BID NO. 22-75
PROJECT NO. 2022-01C
AUGUST 2022

TDLR INSPECTION
REQUIRED

CONTACT INFO:
INSPECTOR: CLINT RYAN
RAS: 1333
PHONE: 972-822-0554



FINAL SUBMITTAL

PLANS AND DETAILS APPROVED FOR THIS PROJECT

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MAYOR

JOE CHOW

CITY COUNCIL

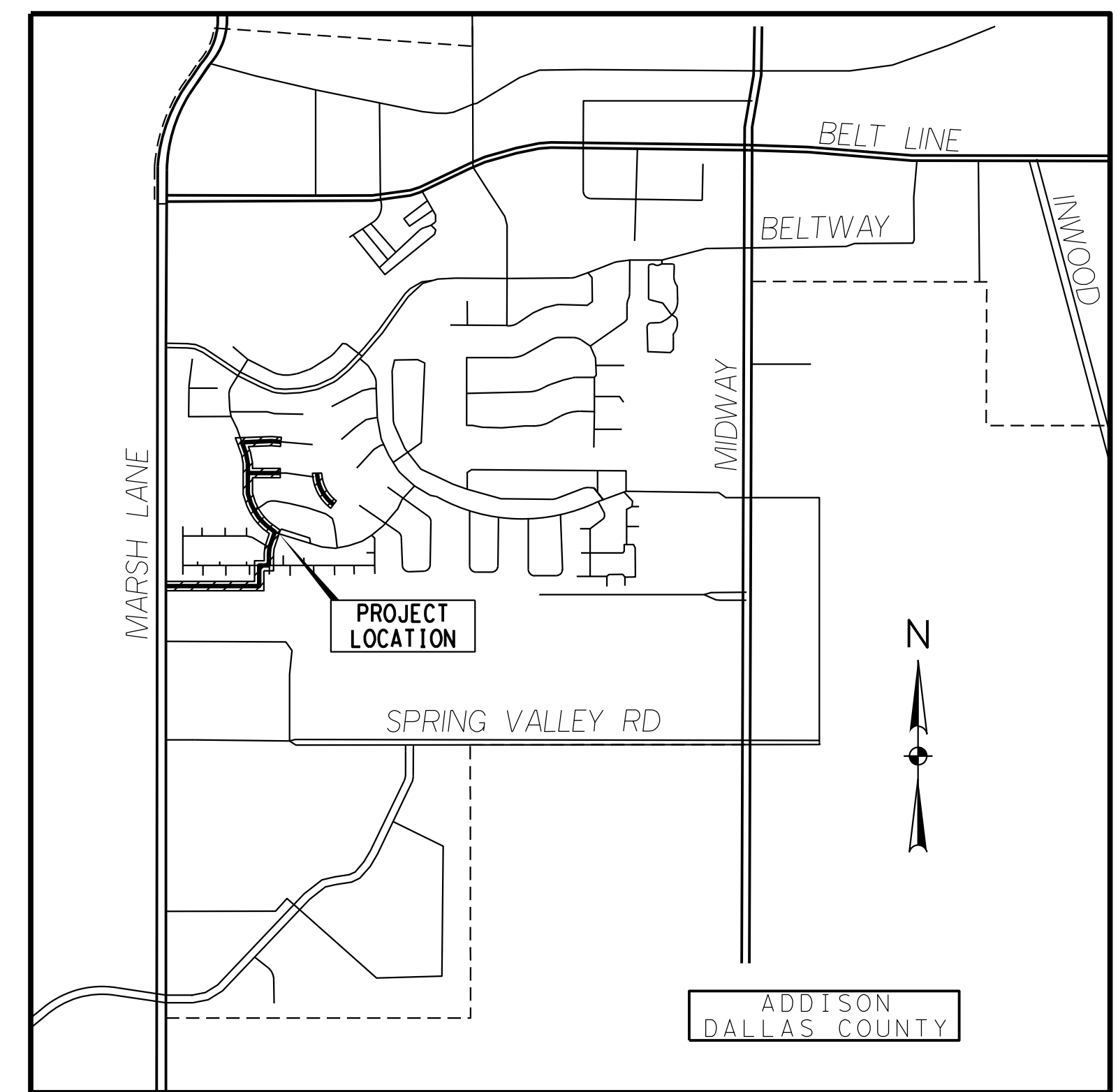
KATHRYN WHEELER (MAYOR PRO TEMPORE)
LORI WARD (DEPUTY MAYOR PRO TEMPORE)
TOM BRAUN
DARREN GARDNER
GUILLERMO QUINTANILLA
EILEEN RESNIK

CITY MANAGER

HAMID KHALEGHIPOUR, INTERIM

DIRECTOR OF PUBLIC WORKS AND
ENGINEERING

SHANNON HICKS, P.E.



LOCATION MAP-NOT TO SCALE
PROJECT LENGTH: 1990 LF



PREPARED FOR
TOWN OF ADDISON, TEXAS
PUBLIC WORKS AND ENGINEERING DEPARTMENT
16801 WESTGROVE DRIVE, ADDISON, TEXAS 75001-5190



SUMMARY OF QUANTITY			
Item #	Bid Qty.	Unit	Description
General			
1	1	LS	Mobilization (5% Max)
2	2	EA	Project Sign
3	1	LS	Barricades, Signs, and Traffic Handling
4	1	AL	Construction Contingency Allowance Owner Approval
Paving			
5	3,498	SY	Remove & Dispose of Existing Pavement
6	3,265	SY	8-Inch Reinforced Concrete Pavement
7	1,021	SY	Remove & Dispose Concrete Sidewalk
8	893	SY	4-Inch Reinforced Concrete Sidewalk
9	233	SY	6-Inch Reinforced Concrete Driveway
10	3,500	SY	8" Flexible Base
11	1,460	LF	6" Monolithic Curb
12	1	EA	Stabilized Construction Entrance
13	2	EA	Remove and Dispose Masonry Mailbox
14	2	EA	Remove and Relocate Masonry Mailbox
15	11	EA	Barrier Free Ramp
Storm Drainage			
16	54	LF	Remove and Dispose of Existing 18" RCP
17	50	LF	Remove and Dispose of Existing 24" RCP
18	484	LF	Remove and Dispose of Existing 42" RCP
19	325	LF	Remove and Dispose of Existing 48" RCP
20	3	EA	Remove and Dispose of Existing Curb Inlet
21	9	SY	Remove and Dispose of Existing Conc Inlet Apron
22	10	SY	Construct Conc Inlet Apron
23	2,072	LF	Trench Safety
24	88	LF	18-Inch Class III RCP
25	922	LF	24-Inch Class III RCP
26	334	LF	36-Inch Class III RCP
27	12	LF	42-Inch Class III RCP
28	66	LF	48-Inch Class III RCP
29	143	LF	48-Inch HDPE (Smooth Walls)
30	507	LF	5'x3' Class C Conc RCB (Precast)
31	7	EA	10-Foot Concrete Curb Inlet
32	1	EA	12'x10' Junction Box Structure
33	3	EA	4'x4' Storm Water Manhole
34	1	EA	5'x5' Storm Water Manhole
35	3	EA	6'x6' Storm Water Manhole
36	1	LS	StormTrap Detention System
37	1	LS	Storm Water Pollution Prevention Plan (SW3P) - Including Maintenance, Inlet Protection, and Erosion Control
38	2,072	LF	Television Inspection
Water/Wastewater			
39	2	EA	Concrete Casing Around Sanitary Sewer
40	2	EA	Adjustment to Water Valve
41	2	EA	Water Main Lowering
42	2	EA	8" Water Main Crossing (By Open Cut)
43	1	EA	12" Water Main Crossing (By Open Cut)
44	9	EA	Furnish & Install 1" Standard Water Service

Landscaping			
45	2,050	SY	Block Sod
46	2,050	SY	Top Soil (4" Depth)
47	7	EA	Remove Trees
48	1	EA	Irrigation (Replace Sprinkler Heads)
49	5	EA	Standard Town Bollard
50	2	EA	Bench
51	1	EA	Trash Receptacle
52	1	EA	Pet Waste Station
53	1	EA	Town Standard Trail Signage
54	355	LF	Steel Edging
55	2	EA	Wrought Iron Gate (4' W x 4' H)
56	2	EA	Canopy Tree
57	3	EA	Ornamental Tree
58	150	EA	5 Gallon Shrub
59	16	EA	3 Gallon Shrub
60	2,171	EA	1 Gallon Shrub
61	8,860	SF	Soil Prep/Mulch
62	8,860	SF	Irrigation

REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

SUMMARY OF QUANTITY SHEET
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	MAY 2022	AS SHOWN	R14799.00		2

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8/2/2022
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GENERAL NOTES

1. OWNER
TOWN OF ADDISON
PUBLIC WORKS AND ENGINEERING DEPARTMENT
16801 WESTGROVE DRIVE
ADDISON, TX 75001-5190
CONTACT: WILSON K. KAKEMBO
PH: (972) 450-2870
EMAIL: WKAKEMBO@ADDISONTX.GOV
2. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE REQUIREMENTS OF THE TOWN OF ADDISON AND SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON STANDARD DETAILS AND SPECIFICATIONS FOR CONSTRUCTION. ALL WORK NOT COVERED IN THE CONTRACT DOCUMENTS AND THE TOWN OF ADDISON STANDARD DETAILS AND SPECIFICATIONS FOR CONSTRUCTION SHALL BE GOVERNED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (NCTCOG) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, FIFTH EDITION, DATED 2017, INCLUDING ALL AMENDMENTS OR TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) STANDARD SPECIFICATIONS, DATED 2014, AS INDICATED IN THE PROJECT MANUAL. A COPY OF THE CONTRACT DOCUMENTS, PLANS AND SPECIFICATIONS SHALL BE AVAILABLE ON-SITE AT ALL TIMES BY THE CONTRACTOR.
3. PRIOR TO SUBMISSION OF THE BID PROPOSAL, THE CONTRACTOR SHALL HAVE MADE A CAREFUL EXAMINATION OF THE WORK SITE, ALL THE CONTRACT DOCUMENTS, AND ALL MATTERS THAT MAY AFFECT THE COST AND TIME FOR THE COMPLETION OF THE WORK INVOLVED. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
4. THE LOCATION AND DEPTH OF ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THERE MAY BE OTHER UNKNOWN EXISTING UTILITIES NOT SHOWN ON THE PLANS. ALL EXISTING UTILITIES SHALL BE FIELD VERIFIED AND PROTECTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE PROTECTION OF EXISTING UTILITIES AND APPURTENANCES, INCLUDING EXISTING UTILITY POLES IN THE VICINITY OF CONSTRUCTION OPERATIONS WHETHER UTILITIES ARE SHOWN IN THE CONTRACT DOCUMENTS OR NOT. ANY DAMAGE INCURRED TO EXISTING UTILITIES WHERE SHOWN OR NOT, APPURTENANCES, POWER POLES, ETC. BY CONSTRUCTION RELATED ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AT NO COST TO THE TOWN OF ADDISON. THE CONTRACTOR SHALL CONTACT THE FOLLOWING FRANCHISE UTILITY COMPANIES 72 HOURS PRIOR TO DOING ANY WORK IN THE AREA:
 - A) ENGINEERING DEPARTMENT - WILSON KAKEMBO - WKAKEMBO@ADDISONTX.GOV
 - B) PARKS DEPARTMENT - JANNA TIDWELL - JTIDWELL@ADDISONTX.GOV
 - C) ONCOR ELECTRIC - LARRY BALDWIN - LARRY.BALDWIN@ONCOR.COM
 - D) ATMOS ENERGY - BOBBY ROGERS - BOBBY.ROGERS@ATMOSENERGY.COM
 - E) AT&T - CHAD COOPER - CC8956@ATT.COM
 - F) TIME WARNER CABLE - DAVID CHENEY - DAVID.CHENEY@TWCABLE.COM
 - G) FIBERLIGHT - MIKE BITSCHKE - MIKE.BITSCHKE@FIBERLIGHT.COM
 - H) CALL 811
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THE FOLLOWING AT NO ADDITIONAL COMPENSATION:
 - A) PREVENT PROPERTY DAMAGE TO PROPERTY OWNER'S POLES, FENCES, SHRUBS, MAILBOXES, CURBS, PAVEMENT, SPRINKLER SYSTEMS, SPRINKLER HEADS, CONCRETE STRUCTURES, ETC.
 - B) PROVIDE AND MAINTAIN ACCESS TO ALL ROADS, DRIVES, AND PRIVATE PROPERTIES DURING CONSTRUCTION.
 - C) PROTECT ALL UNDERGROUND AND OVERHEAD UTILITIES AND REPAIR ANY DAMAGES.
 - D) NOTIFY ALL UTILITY COMPANIES AND VERIFY LOCATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
 - E) COORDINATE AND COOPERATE WITH THE UTILITY COMPANIES WHERE UTILITIES ARE REQUIRED OR SPECIFIED TO BE RELOCATED.
 - F) WORK IN CLOSE PROXIMITY TO AND PROTECT EXISTING UTILITY MAINS, TRAFFIC LIGHTS AND POLES.
 - G) PROVIDE AND MAINTAIN STORM WATER DRAINAGE AT ALL TIMES DURING CONSTRUCTION.
6. ALL COMMUNICATION BETWEEN THE TOWN AND THE CONTRACTOR SHALL BE THROUGH THE TOWN INSPECTOR ONLY.
7. THE CONTRACTOR SHALL INSTALL THE CAPITAL IMPROVEMENT PROJECT SIGNS AS SPECIFIED IN SECTION PS OF THE SPECIAL CONDITIONS OF AGREEMENT AS PER THE ENGINEER'S SPECIFICATIONS PRIOR TO ANY CONSTRUCTION.
8. THE SUCCESSFUL CONTRACTOR SHALL PREPARE AND SUBMIT WRITTEN SUBMITTALS, INCLUDING BUT NOT LIMITED TO SEQUENCE OF CONSTRUCTION PLAN AND WORK SCHEDULE, TRAFFIC CONTROL PLAN, TRENCH SAFETY PLAN, BYPASS PUMPING PLAN, AND DISPOSAL PLAN TO THE TOWN OF ADDISON PRIOR TO COMMENCING WORK AND PROVIDE MONTHLY UPDATES UNTIL THE PROJECT IS COMPLETED. SEQUENCE OF CONSTRUCTION PLAN SHALL DEMONSTRATE THAT ACCESS FOR PROPERTY OWNERS/TENANTS AND FOR EMERGENCY SERVICES IS PROVIDED AT ALL TIMES. TRAFFIC CONTROL PLAN SHALL INDICATE ALL LANE CLOSURES AND DETOURS DURING ALL PHASES OF CONSTRUCTION.
9. CONSTRUCTION MAY ONLY OCCUR FROM 7 A.M. TO 7 P.M. MONDAY THROUGH FRIDAY AND FROM 8 A.M. TO 7 P.M. SATURDAY. NO WORK SHALL OCCUR ON SUNDAYS UNLESS APPROVED BY THE TOWN OF ADDISON.
10. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING, OBTAINING, AND PAYING FOR ANY WATER, ELECTRICAL, OR OTHER SERVICES NEEDED FOR ANY OPERATIONS REQUIRED FOR THIS PROJECT.
11. VEHICULAR TRAFFIC FLOW, SAFETY AND ACCESS SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. BARRICADING AND TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO THE LATEST EDITION OF TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD). TRAFFIC FLOW AND ACCESS SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL ASSUME FULL CONSTRUCTION AREA FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
12. THE CONTRACTOR SHALL SWEEP THE AFFECTED AREA AND ADJACENT STREET WITHIN 200 FEET OF CONSTRUCTION ENTRANCES ONCE A WEEK AND PRIOR TO FORECASTED MAJOR RAIN EVENTS AT NO ADDITIONAL COST TO THE TOWN.
13. ANY DEBRIS, DIRT, OR MUD ON THE ROADWAY MUST BE CLEARED IMMEDIATELY.
14. THE CONTRACTOR SHALL REMOVE FROM THE PROJECT ALL SURPLUS MATERIAL. THIS WORK SHALL BE INCIDENTAL AND NOT A SEPARATE PAY ITEM. SURPLUS MATERIALS FROM EXCAVATION INCLUDING DIRT, TRASH, ROCK MEASURING GREATER THAN 2" IN THE LARGEST DIMENSION, ETC. SHALL BE PROPERLY DISPOSED OF AT A SITE ACCEPTABLE TO THE TOWN OF ADDISON IF WITHIN THE TOWN LIMITS. IF THE LOCATION IS NOT WITHIN THE TOWN LIMITS, THE CONTRACTOR SHALL PROVIDE A LETTER STATING SO, NO EXCESS EXCAVATED MATERIAL SHALL BE DEPOSITED IN LOW AREAS OR ALONG NATURAL DRAINAGE WAYS WITHOUT WRITTEN PERMISSION FROM THE AFFECTED PROPERTY OWNER AND THE TOWN OF ADDISON. IF THE CONTRACTOR PLACES EXCESS MATERIAL IN THESE AREAS WITHOUT WRITTEN PERMISSION, HE WILL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM SUCH FILL AND HE SHALL REMOVE THE MATERIAL AT HIS OWN COST.
15. ALL PHASES OF CONSTRUCTION MUST BE COORDINATED WITH THE TOWN. FIELD ADJUSTMENTS MAY BE NECESSARY AND WILL BE CARRIED OUT AS DIRECTED BY THE ENGINEER, AT NO EXTRA PAY.
16. TEXAS STATE LAW, ARTICLE 1436C, MAKES UNLAWFUL THE OPERATION OF EQUIPMENT OR MACHINES WITHIN 10 FEET OF ANY OVERHEAD ELECTRICAL LINE, UNLESS CONTACT WITH HIGH VOLTAGE LINES HAS BEEN EFFECTIVELY GUARDED AGAINST, PURSUANT TO THE PROVISION OF THE ARTICLE. WHEN CONSTRUCTION OPERATIONS REQUIRE WORKING NEAR AN OVERHEAD ELECTRICAL LINE, THE CONTRACTOR SHALL CONTACT THE OWNER/OPERATOR OF THE OVERHEAD ELECTRICAL LINE TO MAKE ADEQUATE ARRANGEMENTS AND TO TAKE NECESSARY SAFETY PRECAUTIONS TO ENSURE THAT ALL LAWS, ELECTRICAL LINE OWNER/OPERATOR REQUIREMENTS, AND STANDARD INDUSTRY PRECAUTIONS ARE MET.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, LICENSES, ETC. REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
18. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN TOILET FACILITIES AND OTHER NECESSARY BUILDING SHELTERS. THE TOWN WILL NOT PROVIDE ANY FACILITIES TO THE CONTRACTOR DURING CONSTRUCTION.
19. OWNER'S AUTHORIZED REPRESENTATIVE (OAR) AND THE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
20. WORK CANNOT COMMENCE UNTIL:
 - A) THE TOWN HAS ISSUED A NOTICE TO PROCEED.
 - B) ALL SAFETY EQUIPMENT FOR PERSONNEL AND CONSTRUCTION EQUIPMENT IS IN PLACE AND OPERABLE.
 - C) ALL NECESSARY EROSION CONTROL MEASURES ARE IN PLACE TO PROTECT EXISTING DRAINAGE STRUCTURES.
21. MAINTAIN EXISTING PROJECT DRAINAGE UTILITIES UNTIL NEW DRAINAGE FACILITIES ARE FUNCTIONAL; INCLUDING, WHERE NECESSARY, INTERIM REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED FOR CONSTRUCTION OF NEW DRAINAGE FACILITIES.
22. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
23. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY OAR.
24. THE CONTRACTOR SHALL CONTACT THE TOWN OF ADDISON PUBLIC WORKS AND ENGINEERING DEPARTMENT PRIOR TO ANY SIGN REMOVAL. SIGN REMOVAL AND REINSTALLATION/RELOCATION SHALL BE IN GOOD CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION, AND AS PER THE ENGINEER'S SPECIFICATIONS, WITH THE COST INCIDENTAL TO THE PROJECT BID ITEMS.
25. ALL THE EXISTING SURFACE FEATURES WITHIN LIMITS OF PROJECT, INCLUDING, BUT NOT LIMITED TO PAVEMENTS, SIDEWALKS, TRAILS, LANDSCAPE, FENCES, MAILBOXES, LIGHT POLES, SIGNS, PROPERTY CORNER MONUMENTS, ETC. SHALL BE THOROUGHLY DOCUMENTED PRIOR TO CONSTRUCTION WITH PICTURES AND VIDEOS; AND RESTORED AFTER CONSTRUCTION TO THE SAME OR BETTER CONDITIONS WITH EQUAL OR BETTER MATERIALS. THE EXISTING PAVEMENT SHALL BE SAW-CUT ON BOTH SIDES OF THE PROPOSED STORM DRAIN TRENCH AND REPLACED IN KIND PER TOWN'S STANDARD DETAILS. THE FEATURES NOT SPECIFICALLY LISTED IN THE BID SCHEDULE ARE SUBSIDIARY TO LISTED BID ITEMS.
26. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS. ANY DAMAGE CAUSED BY THE CONTRACTOR OUTSIDE OF THE DESIGNATED WORK AREA SHALL BE REPAIRED WITH EQUAL OR BETTER QUALITY MATERIAL AT THE CONTRACTOR'S EXPENSE.
27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL PRECAUTIONS TO PROTECT EXISTING TREES OUTSIDE THE SCOPE OF THIS PROJECT. TREES SHALL ONLY BE REMOVED IF DESIGNATED ON THE PLANS.
28. WHERE TREES, PLANTS, SHRUBBERY, ETC. ARE ADJACENT TO THE LINE OF WORK AND ARE NOT TO BE REMOVED OR REPLACED, THE CONTRACTOR SHALL PROTECT SUCH TREES, PLANTS, SHRUBBERY, ETC. IF SUCH TREES, PLANTS, SHRUBBERY, ETC. COULD BE DAMAGED BY MACHINERY, ETC., ORANGE SAFETY FENCING WITH STEEL T-POSTS HAVING A MINIMUM HEIGHT OF 3' AND AS APPROVED BY THE TOWN SHALL BE UTILIZED FOR PROTECTION. HAND EXCAVATION MAY ALSO BE REQUIRED IN THE VICINITY OF TREES, PLANTS, SHRUBBERY, ETC. THAT ARE TO REMAIN. THE CONTRACTOR SHALL NOT PERMIT MACHINERY OR EMPLOYEES TO SCRAPE, TEAR THE LIMBS FROM, DAMAGE OR ATTACH GUY CABLES TO EXISTING TREES THAT ARE TO REMAIN IN PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO ADJACENT TREES, PLANTS, SHRUBBERY, ETC. THAT ARE TO REMAIN AND ANY SUCH DAMAGE SHALL BE REMEDIATED TO THE SATISFACTION OF THE TOWN.
29. ANY TREE PRUNING SHALL BE COORDINATED WITH THE TOWN'S PARKS DEPARTMENT.
30. ALL EXISTING GRADES SHOWN ON THE PLANS ARE APPROXIMATE AND SHOWN BASED ON THE BEST INFORMATION AVAILABLE.
31. THE CONTRACTOR SHALL KEEP THE EXISTING FIRE HYDRANTS IN SERVICE AT ALL TIMES.
32. THE CONTRACTOR SHALL MAINTAIN THE EXISTING WATER MAINS IN SERVICE DURING ALL PHASES OF CONSTRUCTION AT NO EXTRA PAY. LEAKS CAUSED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. LEAKS ALONG THE EXISTING WATER MAIN CLOSE TO THE WORKING AREA, CAUSED BY VIBRATION, ETC. (DURING WORKING HOURS) SHALL BE REPAIRED BY THE CONTRACTOR WITH THE TOWN ONLY PROVIDING THE REQUIRED PARTS. THE TOWN WILL REPAIR ALL LEAKS IF THE CONTRACTOR IS NOT ON THE JOB-SITE (PRIMARILY AFTER WORKING HOURS); IF THE LEAK IS DIRECTLY CAUSED BY THE CONTRACTOR AND NOT REPAIRED, ALL CHARGES INCURRED SHALL BE BILLED TO THE CONTRACTOR.
33. "SHEETING, SHORING AND BRACING": THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS GOVERNING EXCAVATION. TRENCH SIDE SLOPES SHALL MEET OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS THAT ARE IN EFFECT AT THE TIME OF BID OPENING. SHEETING, SHORING AND BRACING SHALL BE PROVIDED WHEN SIDE SLOPES STANDARDS ARE NOT MET. A PULL BOX, MEETING OSHA STANDARDS, MAY BE ACCEPTABLE, UNLESS NEGATED BY GROUNDWATER CONTROL MEASURES. THE APPARENT LOW BIDDER SHALL SUBMIT DETAILED PLANS AND SPECIFICATIONS FOR TRENCH SAFETY SYSTEM THAT MEET OSHA STANDARDS THAT ARE IN EFFECT AT THE TIME OF BID OPENING. THESE PLANS SHALL BE SEALED BY AN ENGINEER LICENSED BY THE STATE OF TEXAS AND SUBMITTED TO THE TOWN PRIOR TO THE FORMAL EXECUTION OF THE CONTRACT.
34. THE CONTRACTOR WILL FURNISH TO THE TOWN OF ADDISON THE NAME OF AN OSHA-CERTIFIED COMPETENT PERSON TO BE ON THE PROJECT AT ALL TIMES DURING ONGOING CONSTRUCTION ACTIVITIES.
35. CONTRACTOR SHALL CONFORM ACTIVITIES TO THE CONTRACTOR PREPARED SWPPP AS SPECIFIED, INCLUDING INSTALLING, MAINTAINING, AND REMOVING POLLUTION CONTROLS, CONDUCTING AND DOCUMENTING INSPECTIONS OF POLLUTION CONTROLS, SPRINKLING FOR DUST CONTROL, MAINTAINING SPILL RESPONSE EQUIPMENT ON-SITE, AND "GOOD HOUSEKEEPING". POLLUTION CONTROLS INCLUDE SILT FENCES (OR STRAW BALES), STABILIZED CONSTRUCTION ENTRANCE, ESTABLISHING GRASS, SPRINKLING FOR DUST CONTROL.
36. THE CONTRACTOR SHALL CEASE ALL CONSTRUCTION OPERATIONS IMMEDIATELY IF A SUSPECTED ARCHEOLOGICAL OBJECT/ARTIFACT IS UNCOVERED DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE TOWN. PROJECT WORK SHALL BE RECOMMENCE UNTIL PROPER PERMITS ARE IN PLACE AND PROVIDED TO THE TOWN.
37. ALL EXISTING STORMWATER PIPE REMOVED BY CONTRACTOR AS DIRECTED BY PLANS SHALL BECOME PROPERTY OF THE CONTRACTOR.
38. IRRIGATION AND SPRINKLER SYSTEM NOTES:
 - A) ALL ACTIVITIES THAT IMPACT EXISTING OR PROPOSED IRRIGATION SYSTEMS SHALL BE OVERSEEN BY A TEXAS LICENSED LANDSCAPE IRRIGATOR.
 - B) PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES, EXISTING IRRIGATION SYSTEMS SHALL BE TURNED ON. THE LOCATION OF THE HEADS, VALVES, AND PIPE SHALL BE MARKED WHERE DEMOLITION OR CONSTRUCTION WILL IMPACT THE SYSTEM. DEFICIENCIES IN THE SYSTEM SHALL BE NOTED AND REPORTED TO THE SYSTEM OWNER.
 - C) PIPING SHALL BE CUT, CAPPED, AND MARKED AT THE LIMITS OF CONSTRUCTION.
 - D) AT THE COMPLETION OF CONSTRUCTION, THE LICENSED IRRIGATOR SHALL RESTORE AND TEST THE IRRIGATION SYSTEMS FOR PROPER FUNCTION. THE TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE TOWN'S REPRESENTATIVE AND THE SYSTEM OWNERS.
 - E) THE CONTRACTOR SHALL MAINTAIN IRRIGATION OF LANDSCAPED AREAS ADJACENT TO THE PROJECT WHILE THE EXISTING IRRIGATION SYSTEM IS BEING MODIFIED.



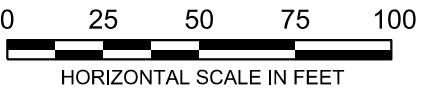
REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

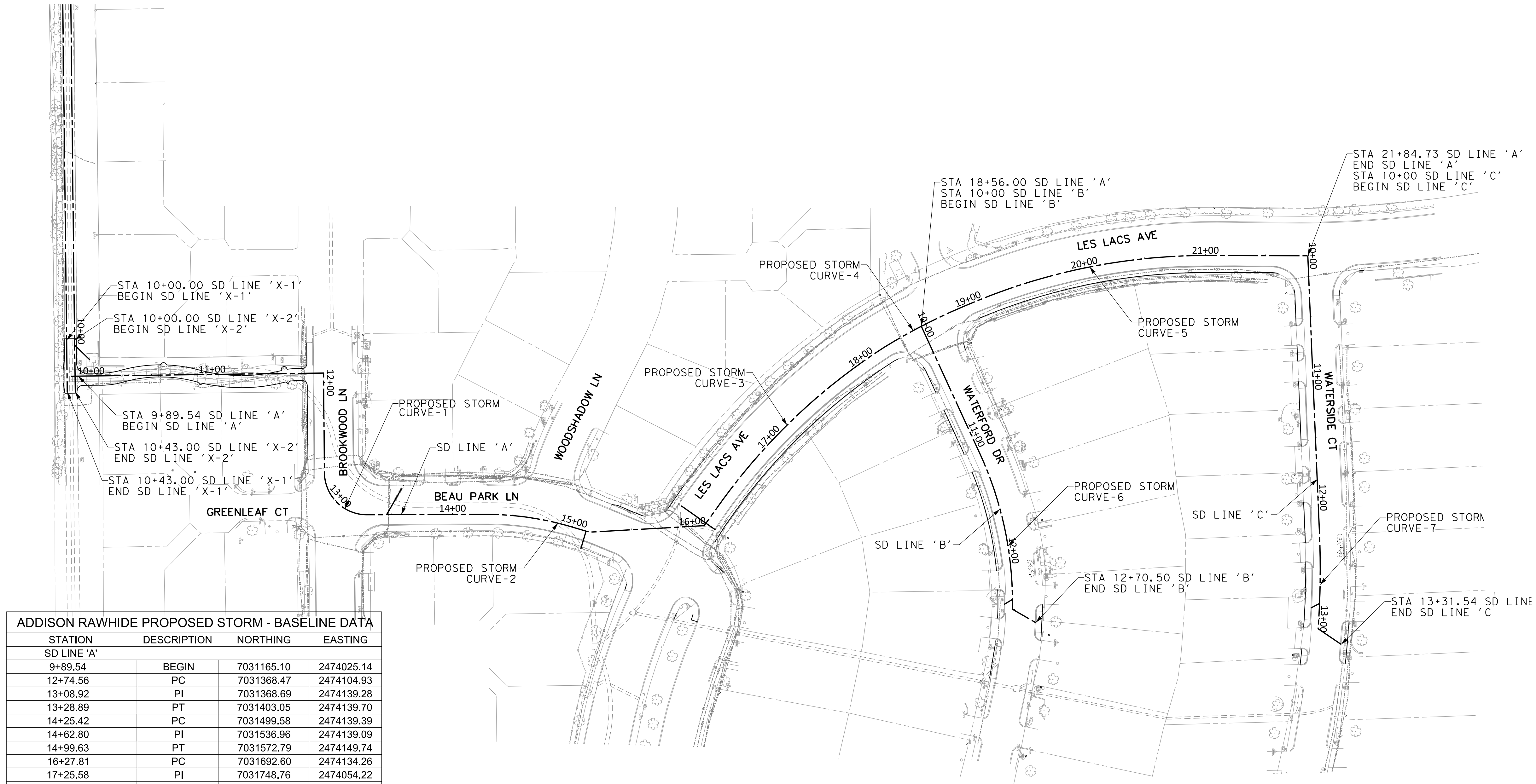
GENERAL NOTES
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		3



NOTES:

1. SURFACE ADJUSTMENT FACTOR IS 1.000136506.
2. INFORMATION SHOWN HEREON IS BASED UPON DOCUMENTS OF RECORD AND SHOULD NOT BE CONSTRUED AS BOUNDARY SURVEY.



ADDISON RAWHIDE PROPOSED STORM - BASELINE DATA

STATION	DESCRIPTION	NORTHING	EASTING
SD LINE 'A'			
9+89.54	BEGIN	7031165.10	2474025.14
12+74.56	PC	7031368.47	2474104.93
13+08.92	PI	7031368.69	2474139.28
13+28.89	PT	7031403.05	2474139.70
14+25.42	PC	7031499.58	2474139.39
14+62.80	PI	7031536.96	2474139.09
14+99.63	PT	7031572.79	2474149.79
16+27.81	PC	7031692.60	2474134.26
17+25.58	PI	7031748.76	2474054.22
18+20.92	PCC	7031830.94	2474001.24
18+61.80	PI	7031865.80	2473979.91
19+02.49	PCC	7031903.67	2473964.52
20+06.55	PI	7031999.59	2473924.17
21+07.68	PT	7032103.64	2473925.45
21+84.73	END	7032181.30	2473925.65
SD LINE 'X-1'			
10+00.00	TIE-IN (BEGIN)	7031155.51	2473995.26
10+43.00	TIE-IN (END)	7031155.99	2474038.28
SD LINE 'X-2'			
10+00.00	TIE-IN (BEGIN)	7031162.02	2473995.18
10+43.00	TIE-IN (END)	7031162.62	2474038.19
SD LINE 'B'			
10+00.00	BEGIN	7031861.61	2473983.93
11+16.07	PC	7031910.04	2474089.41
11+80.13	PI	7031936.79	2474147.61
12+42.20	PT	7031936.87	2474211.66
12+70.50	END	7031956.08	2474228.87
SD LINE 'C'			
10+00.00	BEGIN	7032180.85	2473925.65
12+30.15	PC	7032190.81	2474155.38
12+69.39	PI	7032192.49	2474195.05
13+08.55	PT	7032189.63	2474234.66
13+31.36	END	7032208.11	2474246.97

ADDISON RAWHIDE PROPOSED STORM - CURVE DATA

CURVE	PI STATION	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	PC STATION	PT STATION
PROPOSED STORM CURVE-1	13+08.92	88° 55' 58.35" (LT)	163° 42' 08.02"	34.35'	54.35	35.00'	12+74.56	13+28.89
PROPOSED STORM CURVE-2	14+62.80	17° 00' 32.02" (RT)	22° 55' 05.92"	37.38'	74.22'	250.00'	14+25.42	14+99.63
PROPOSED STORM CURVE-3	17+25.58	22° 07' 43.53" (RT)	11° 27' 32.96"	97.77'	193.11'	500.00'	16+27.81	18+20.92
PROPOSED STORM CURVE-4	18+61.80	9° 20' 48.39" (RT)	11° 27' 32.96"	40.87	81.57	500.00'	18+20.92	19+02.49
PROPOSED STORM CURVE-5	20+06.55	23° 30' 46.50" (RT)	11° 27' 32.96"	104.06'	205.19'	500.00'	19+02.49	21+07.68
PROPOSED STORM CURVE-6	11+80.13	24° 37' 19.38" (RT)	19° 31' 17.62"	64.05'	126.13'	293.50'	11+16.07	12+42.20
PROPOSED STORM CURVE-7	12+69.39	6° 28' 36.44" (RT)	8° 15' 42.58"	39.24	78.39	693.50'	12+30.15	13+08.55



REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

HORIZONTAL ALIGNMENT DATA
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

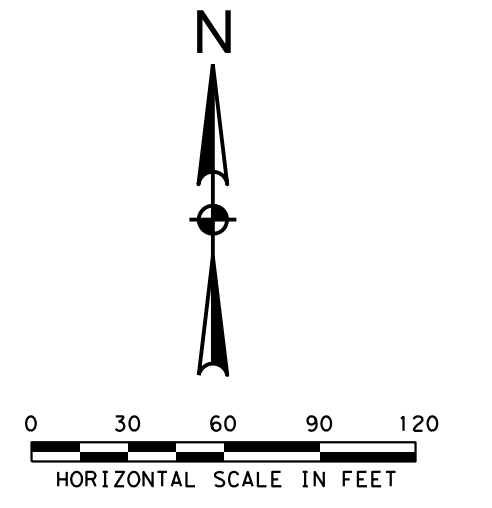
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Point No.	Grid Northing	Grid Easting	Surface Northing	Surface Easting	Elevation	Description
COA-1	7028890.84	2473021.889	7029850.325	2473359.471	573.149	2" BRASS DISK STAMPED "TXDOT COA-1 GPS"
COA-3	7032377.29	2472935.192	7033337.252	2473272.762	585.419	2" BRASS DISK STAMPED "TXDOT COA-3 GPS"
800	7030035.112	2472862.912	7030994.754	2473200.473	578.291	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
801	7030202.084	2473122.281	7031161.749	2473459.877	582.490	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
802	7030214.134	2473696.283	7031173.800	2474033.957	583.191	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
803	7030438.750	2473682.689	7031398.447	2474020.362	584.480	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
804	7030384.802	2473969.718	7031344.492	2474307.430	584.879	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
805	7030724.601	2473830.143	7031684.337	2474167.836	587.570	MAGNAIL SET WITH SHINER STAMPED "CRIADO"
806	7030924.567	2473583.635	7031884.330	2473921.294	592.486	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
807	7031204.218	2473610.945	7032164.020	2473948.608	595.972	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
808	7031246.574	2473984.659	7032206.381	2474322.373	594.778	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
809	7030990.117	2473974.853	7031949.889	2474312.565	591.479	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
810	7031331.887	2474241.571	7032291.706	2474579.320	601.226	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
811	7031005.785	2474516.672	7031965.559	2474854.458	600.370	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"

GRID TO SURFACE: TXDOT DALLAS COUNTY SCALE FACTOR OF 1.000136506.
 HORIZONTAL DATA BASED ON NORTH AMERICAN DATUM OF 1983 (NAD '83).
 COORDINATES ARE ON TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202).
 VERTICAL DATUM BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).



- NOTES:
- CONTROL IS BASED UPON TOWN OF ADDISON PUBLISHED CONTROL POINTS COA-10 AND COA-5 LOCATED OFF-SITE. SURFACE ADJUSTMENT FACTOR IS 1.000136506.
 - INFORMATION SHOWN HEREON IS BASED UPON DOCUMENTS OF RECORD AND SHOULD NOT BE CONSTRUED AS BOUNDARY SURVEY.



REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

SURVEY CONTROL
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

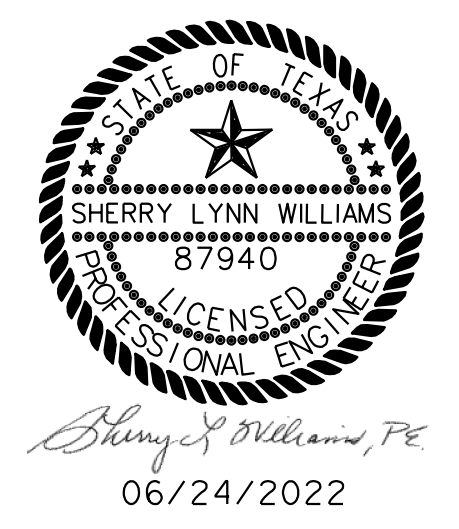
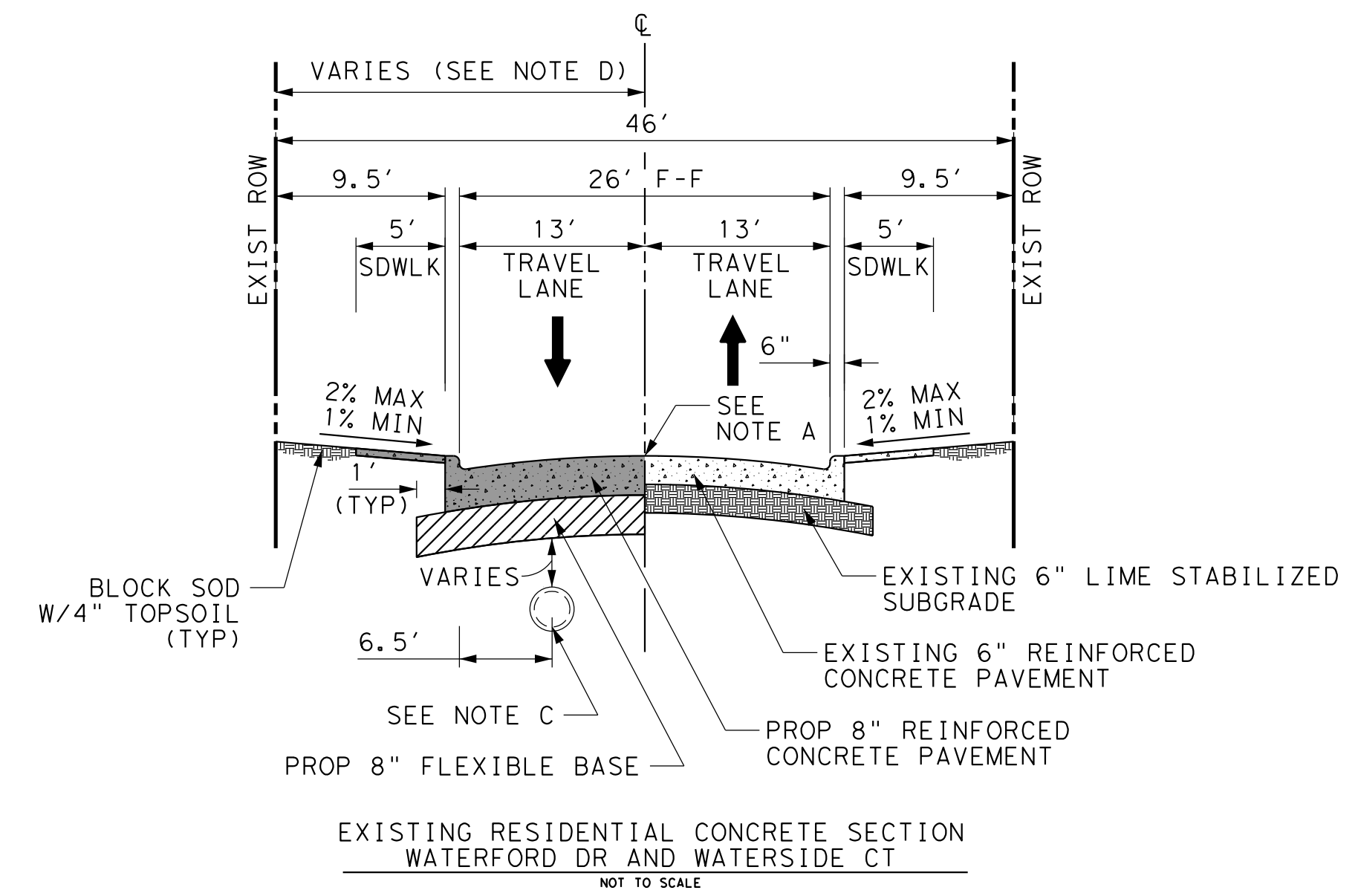
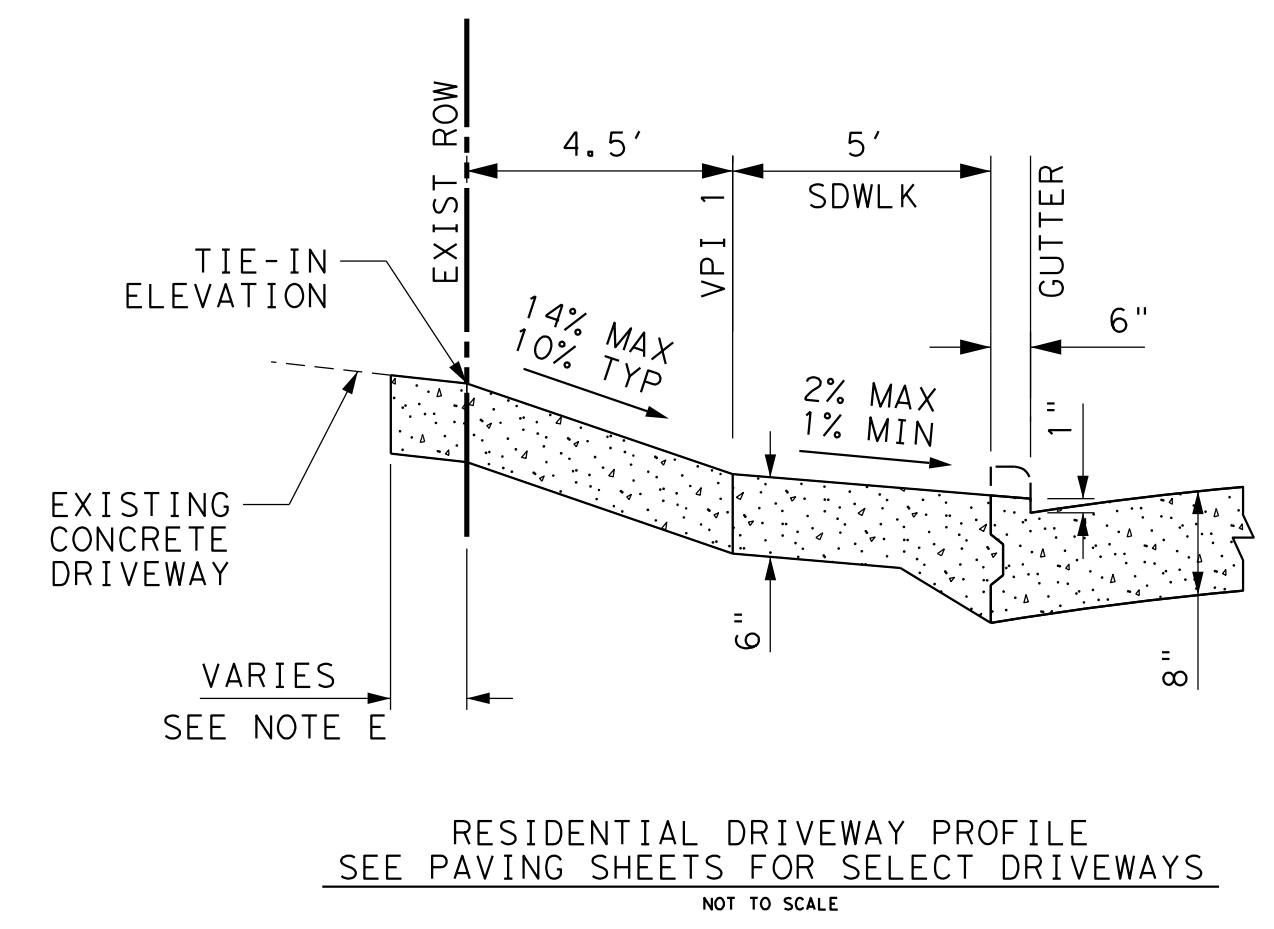
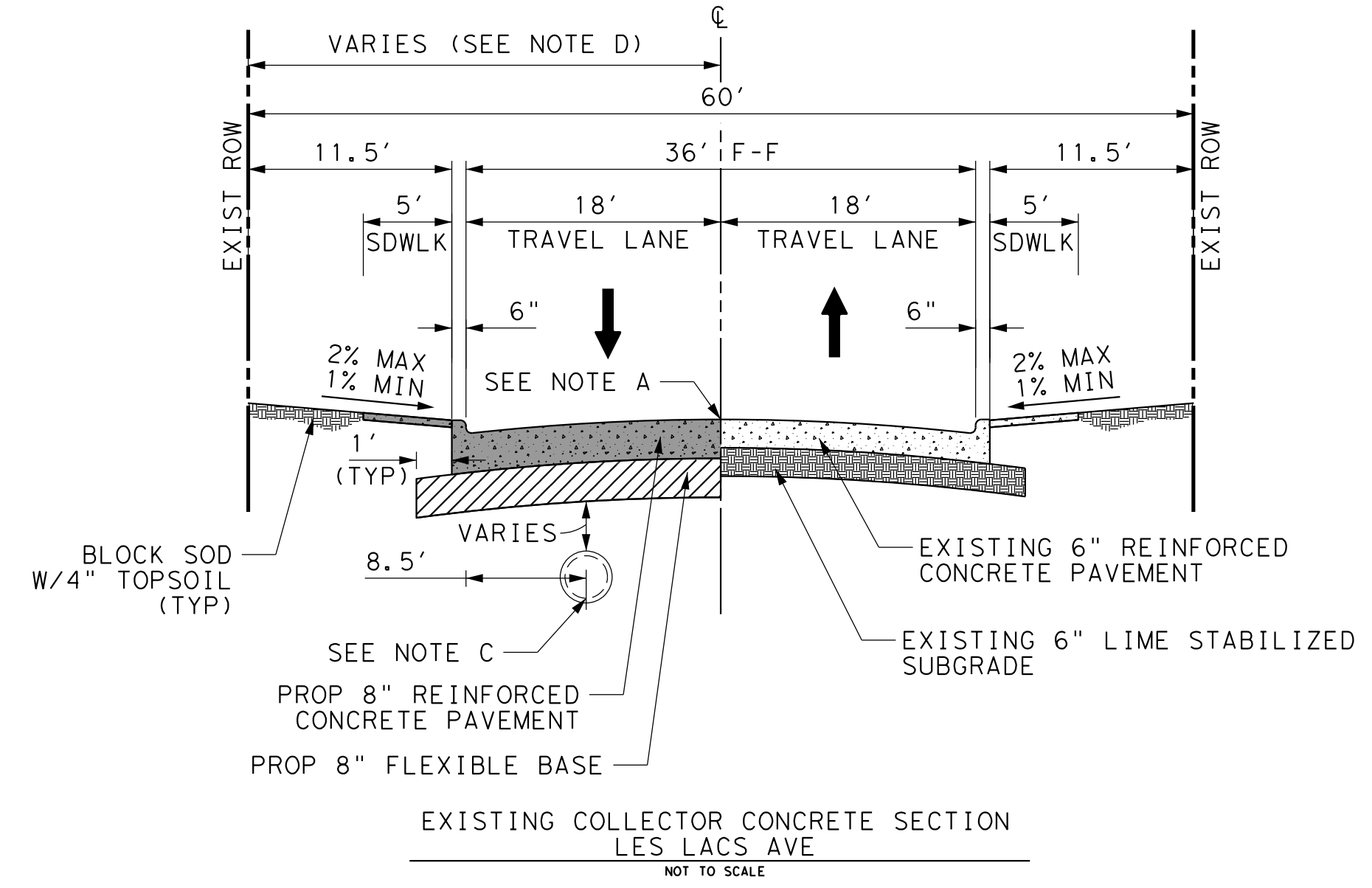
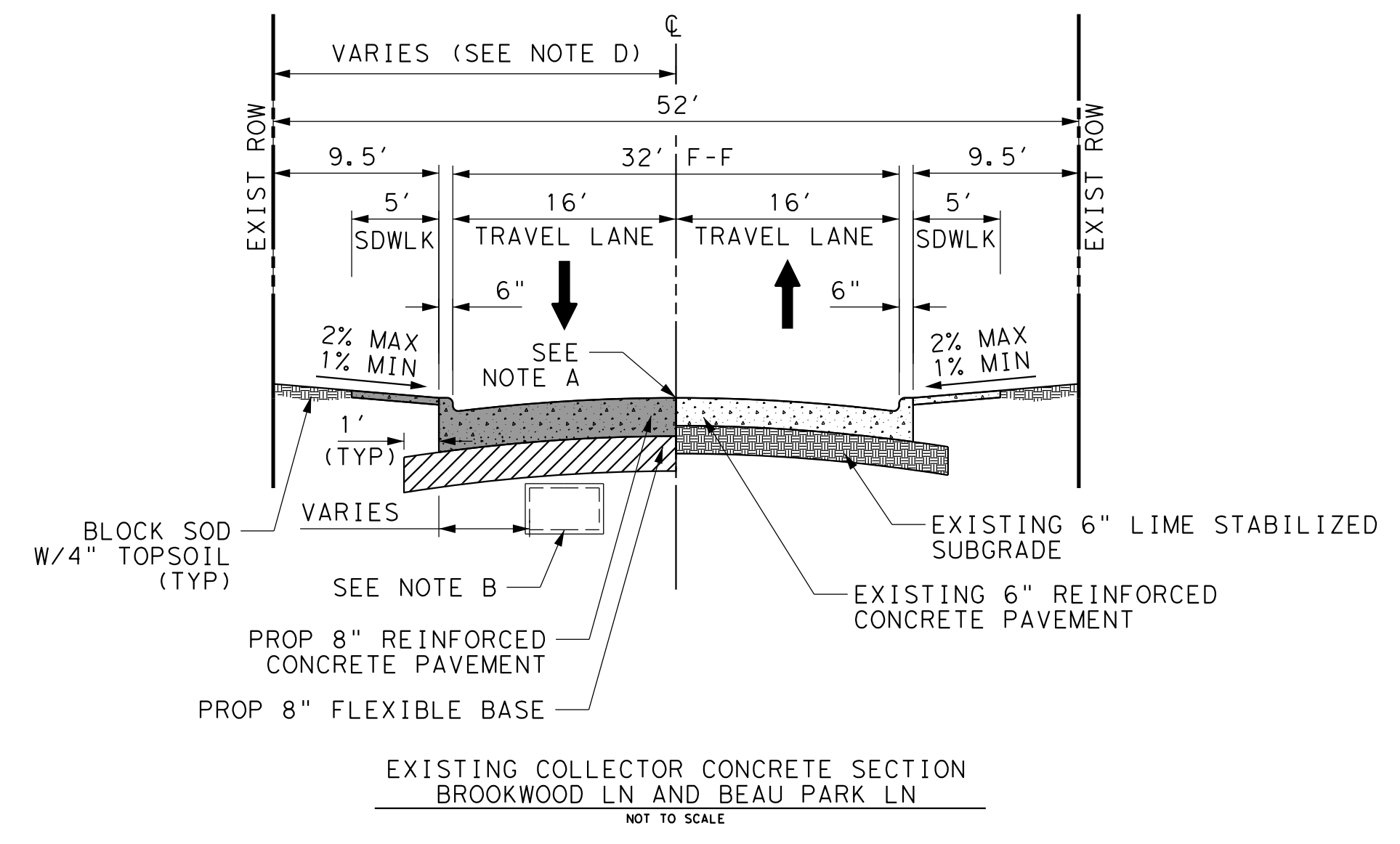
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- A. 6" PARABOLIC CROWN
- B. PROPOSED RCB STORM SEWER. LOCATION AND DEPTH VARIES. SEE DRAINAGE SHEETS FOR DETAILS
- C. PROPOSED RCP STORM SEWER. SIZE, LOCATION, AND DEPTH VARIES. SEE DRAINAGE SHEETS FOR DETAILS
- D. PROPOSED ROADWAY RECONSTRUCTION, SEE PAVING SHEETS FOR LIMITS OF CONSTRUCTION
- E. REFER TO PAVING AND DRIVEWAY PROFILE SHEETS FOR DRIVEWAYS EXTENDING PAST ROW.

- NOTES:
1. ROAD RECONSTRUCTION TO MATCH EXISTING TYPICAL SECTION. SEE PAVING SHEETS FOR DETAILS OF EXTENT AND LIMITS OF ROAD RECONSTRUCTION
 2. INFORMATION SHOWN HEREON IS BASED UPON DOCUMENTS OF RECORD AND SHOULD NOT BE CONSTRUED AS BOUNDARY SURVEY.
 3. TIE INTO EXISTING PAVEMENT AT EXISTING JOINT AS SHOWN ON PAVING PLAN.
 4. EXISTING UTILITIES ARE NOT ALL-INCLUSIVE. EXISTING UTILITY LOCATIONS ARE SHOWN AT APPROXIMATE DEPTH AND LOCATION FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY THE PRESENCE, LOCATION, AND ELEVATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.



REV. NO.	DATE	DESCRIPTION	BY
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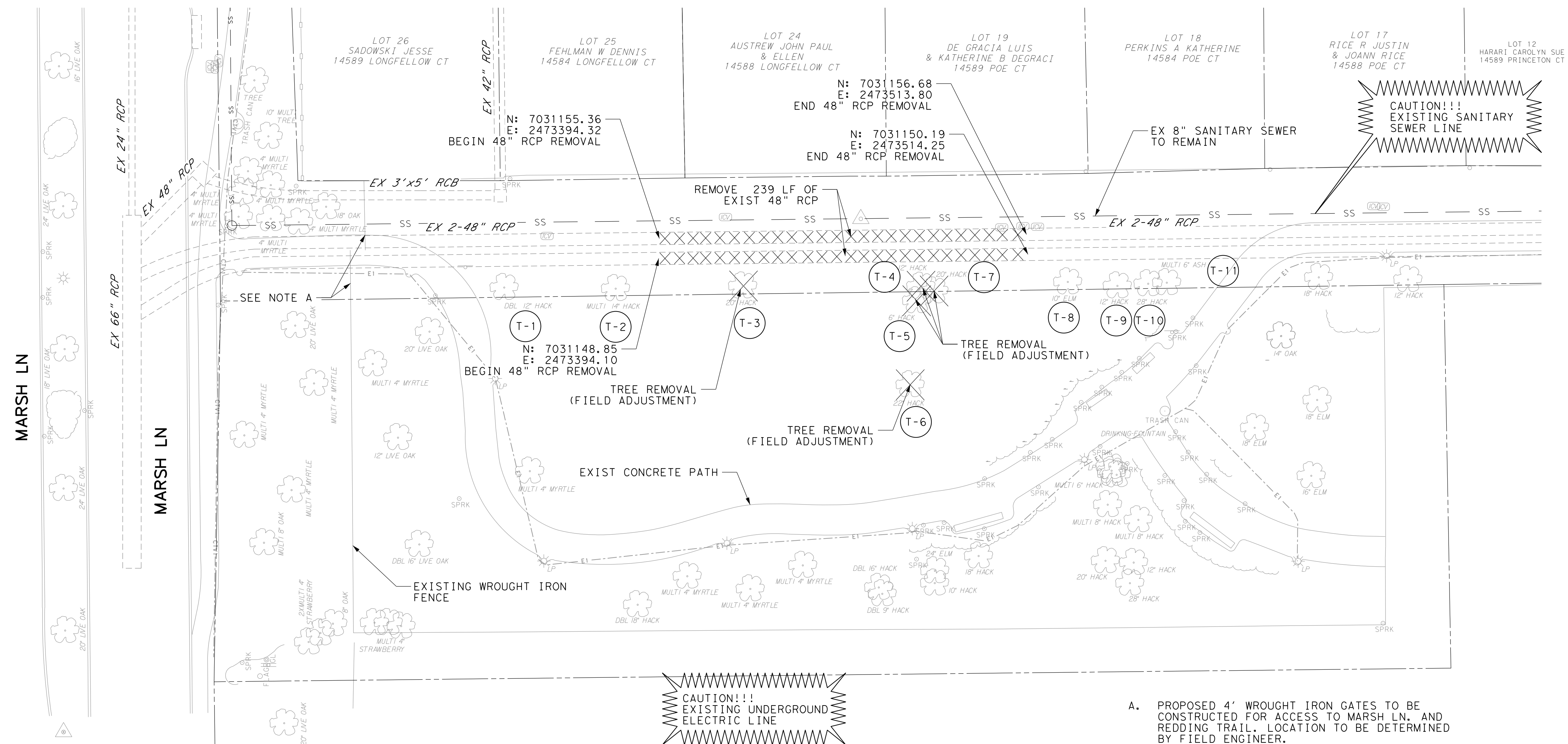
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

TYPICAL SECTIONS
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

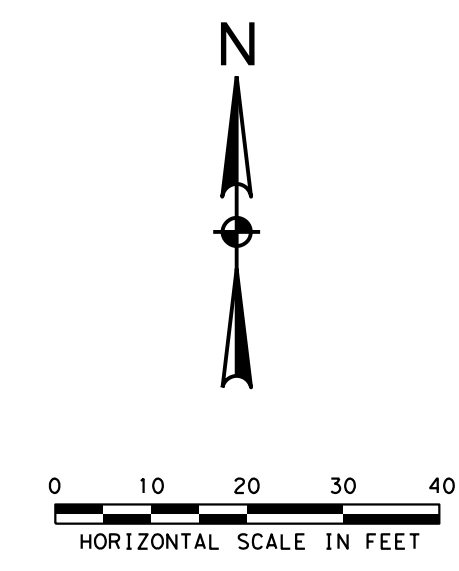
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CAUTION!!!
 UNDERGROUND AND OVERHEAD UTILITIES
 IN VICINITY. CONTRACTOR SHALL LOCATE
 HORIZONTAL AND VERTICAL LOCATIONS OF
 ALL UNDERGROUND UTILITIES IN THE
 VICINITY OF CONSTRUCTION PRIOR TO
 COMMENCING WORK.



REMOVAL LEGEND

	REMOVE CONCRETE SIDEWALK
	REMOVE CONCRETE PAVEMENT, ROADWAY (FULL DEPTH)
	REMOVE CONCRETE DRIVEWAY
	REMOVE EXISTING PIPE
	TREE
	FENCE
	LIGHT POLE
	TELEPHONE PEDESTAL
	CABLE TV SPLICE BOX
	SANITARY SEWER
	WATER METER
	WATER VALVE
	IRRIGATION CONTROL DEVICE
	MAILBOX

- NOTES:**
- REMOVAL SHALL BE PHASED AS SHOWN ON THE TRAFFIC CONTROL PLANS. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION.
 - ALL EXISTING TREES, LANDSCAPING, FENCING, GATES, PRIVATE SIGNS, AND RELATED APPURTENANCES THAT SHALL REMAIN OR BE RELOCATED MUST BE PROTECTED AGAINST CONSTRUCTION DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.
 - ALL EXISTING FEATURES ARE BASED ON BEST AVAILABLE RECORDS AND FIELD DATA PERFORMED BY CRIADO, DATED MARCH, 2021. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FEATURES BEFORE BEGINNING ANY CONSTRUCTION.
 - SAWCUT EXISTING PAVEMENT AT ALL PAVEMENT REMOVAL LIMITS. ALL SAWCUTS SHALL BE FULL DEPTH. SAWCUT CONCRETE PAVEMENT INTO SMALLER PIECES AND LIFT WITH LOADER. NO JACK HAMMERING, GUILLOTINE CRUSHERS OR OTHER EQUIPMENT THAT CAUSES VIBRATORY SOIL (NO SEPARATE PAY ITEM).
 - CONTRACTOR TO MAINTAIN MAIL SERVICE DURING CONSTRUCTION.
 - POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
 - TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
 - SEE PAVING PLANS FOR REMOVAL CONTROL POINTS
 - EXISTING ADA RAMPS TO BE REMOVED, INCLUDED ON SIDEWALK REMOVAL QUANTITIES.



REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

REMOVAL PLAN
EXISTING TRAIL
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		7

REMOVAL QUANTITY PER SHEET
 TOTAL 48" RCP REMOVAL - 239 LF
 TOTAL EXIST TREE REMOVAL - 5 EA

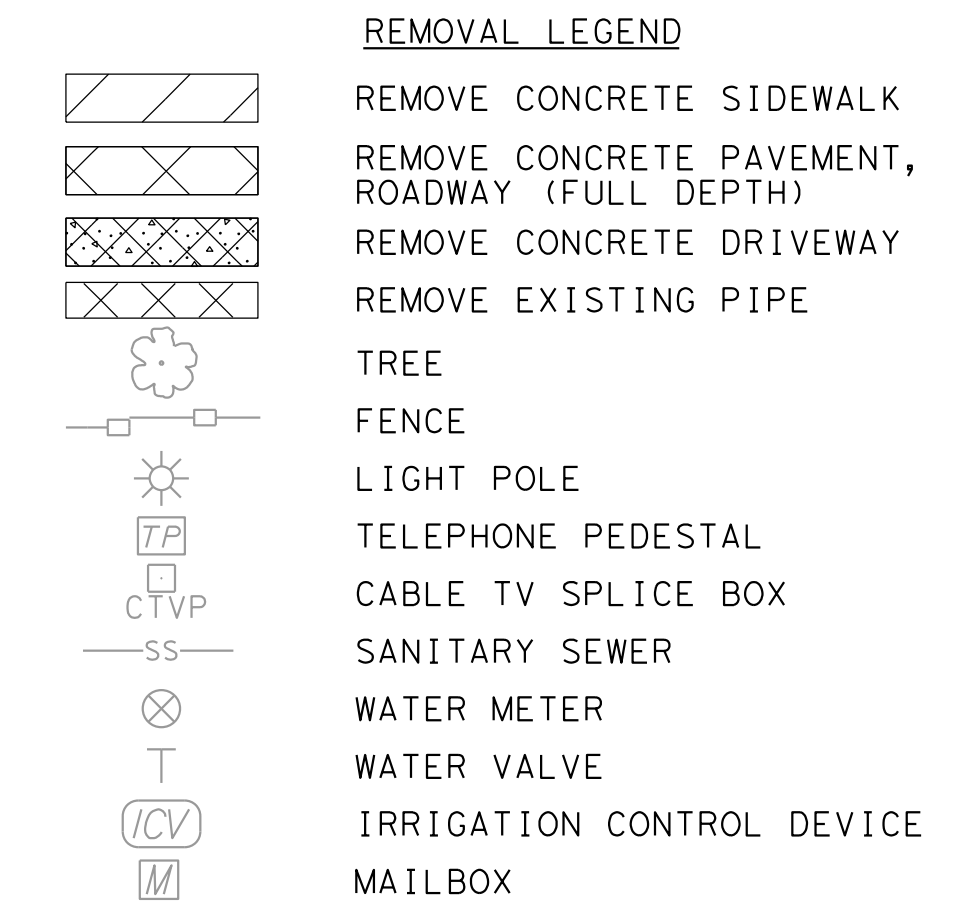
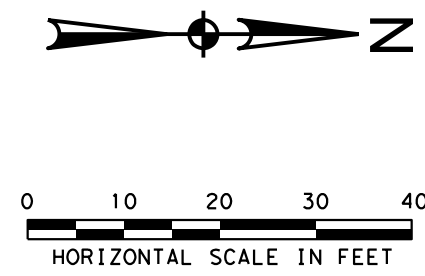
EXISTING TREE SCHEDULE				
TREE ID	TREE TYPE	SIZE (IN)	REMOVED	INCHES REMOVED
T-1	HACK	12"	N	N/A
T-2	MULTI HACK	14"	N	N/A
T-3	HACK	20"	Y	20"
T-4	HACK	12"	Y	12"
T-5	HACK	6"	Y	6"
T-6	HACK	24"	Y	24"
T-7	HACK	12"	Y	12"
T-8	ELM	10"	N	N/A
T-9	HACK	12"	N	N/A
T-10	HACK	28"	N	N/A
T-11	MULTI ASH	6"	N	N/A

EXISTING UTILITY LOCATIONS SHOWN ARE GENERALLY SCHEMATIC IN NATURE AND MAY NOT ACCURATELY REFLECT THE SIZE AND LOCATION OF EACH PARTICULAR UTILITY. SOME UTILITY LINES AND SURFACE LOCATIONS MAY NOT BE SHOWN. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ACTUAL FIELD LOCATION AND PROTECTION OF EXISTING UTILITIES WHETHER SHOWN OR NOT. CONTRACTOR SHALL ALSO ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING UTILITIES, WHETHER SHOWN OR NOT, DAMAGED BY CONTRACTOR ACTIVITIES. DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATION OF EXISTING UTILITIES SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.

A. PROPOSED 4' WROUGHT IRON GATES TO BE CONSTRUCTED FOR ACCESS TO MARSH LN, AND REDDING TRAIL. LOCATION TO BE DETERMINED BY FIELD ENGINEER.

NOTES:

- A. SAWCUT, DEMOLISH, AND REMOVE EXISTING CONCRETE ROADWAY
- B. REMOVE EXISTING SIDEWALK



NOTES:

1. REMOVAL SHALL BE PHASED AS SHOWN ON THE TRAFFIC CONTROL PLANS. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION.
2. ALL EXISTING TREES, LANDSCAPING, FENCING, GATES, PRIVATE SIGNS, AND RELATED APPURTENANCES THAT SHALL REMAIN OR BE RELOCATED MUST BE PROTECTED AGAINST CONSTRUCTION DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.
3. ALL EXISTING FEATURES ARE BASED ON BEST AVAILABLE RECORDS AND FIELD DATA PERFORMED BY CRIADO, DATED MARCH, 2021. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FEATURES BEFORE BEGINNING ANY CONSTRUCTION.
4. SAWCUT EXISTING PAVEMENT AT ALL PAVEMENT REMOVAL LIMITS. ALL SAWCUTS SHALL BE FULL DEPTH. SAWCUT CONCRETE PAVEMENT INTO SMALLER PIECES AND LIFT WITH LOADER. NO JACK HAMMERING, GUILLOTINE CRUSHERS OR OTHER EQUIPMENT THAT CAUSES VIBRATORY SOIL (NO SEPARATE PAY ITEM).
5. CONTRACTOR TO MAINTAIN MAIL SERVICE DURING CONSTRUCTION.
6. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
7. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
8. SEE PAVING PLANS FOR REMOVAL CONTROL POINTS
9. EXISTING ADA RAMPS TO BE REMOVED, INCLUDED ON SIDEWALK REMOVAL QUANTITIES.



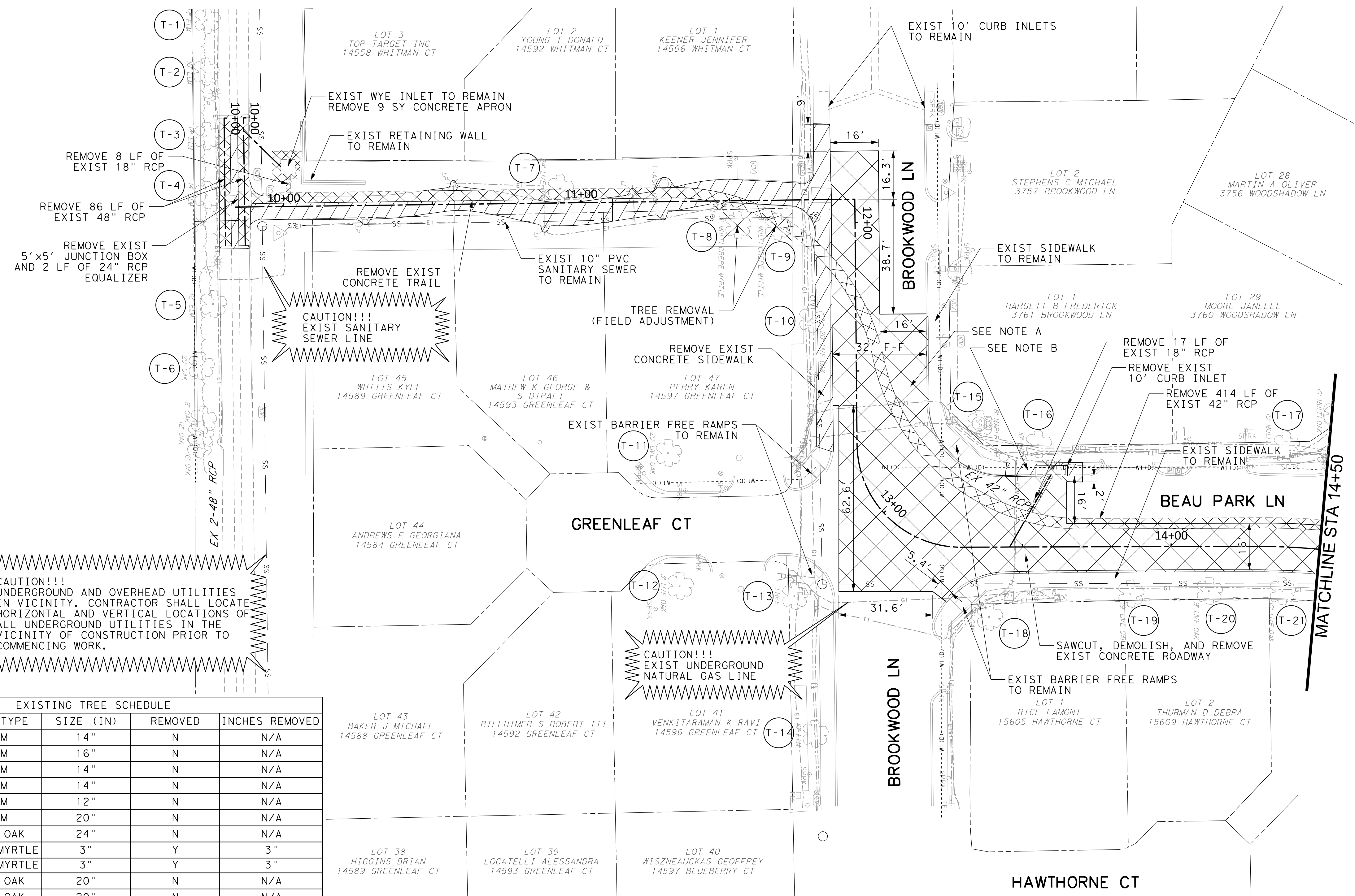
REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

REMOVAL PLAN
SD LINE 'A' BEGIN TO STA 14+50
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00	REM-01	8



CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.

CAUTION!!!
EXISTING UNDERGROUND NATURAL GAS LINE

CAUTION!!!
EXISTING UNDERGROUND ELECTRIC LINE

CAUTION!!!
EXISTING UNDERGROUND COMMUNICATION LINE

EXISTING UTILITY LOCATIONS SHOWN ARE GENERALLY SCHEMATIC IN NATURE AND MAY NOT ACCURATELY REFLECT THE SIZE AND LOCATION OF EACH PARTICULAR UTILITY. SOME UTILITY LINES AND SURFACE LOCATIONS MAY NOT BE SHOWN. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ACTUAL FIELD LOCATION AND PROTECTION OF EXISTING UTILITIES WHETHER SHOWN OR NOT. CONTRACTOR SHALL ALSO ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING UTILITIES, WHETHER SHOWN OR NOT, DAMAGED BY CONTRACTOR ACTIVITIES. DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATION OF EXISTING UTILITIES SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.

REMOVAL QUANTITY PER SHEET

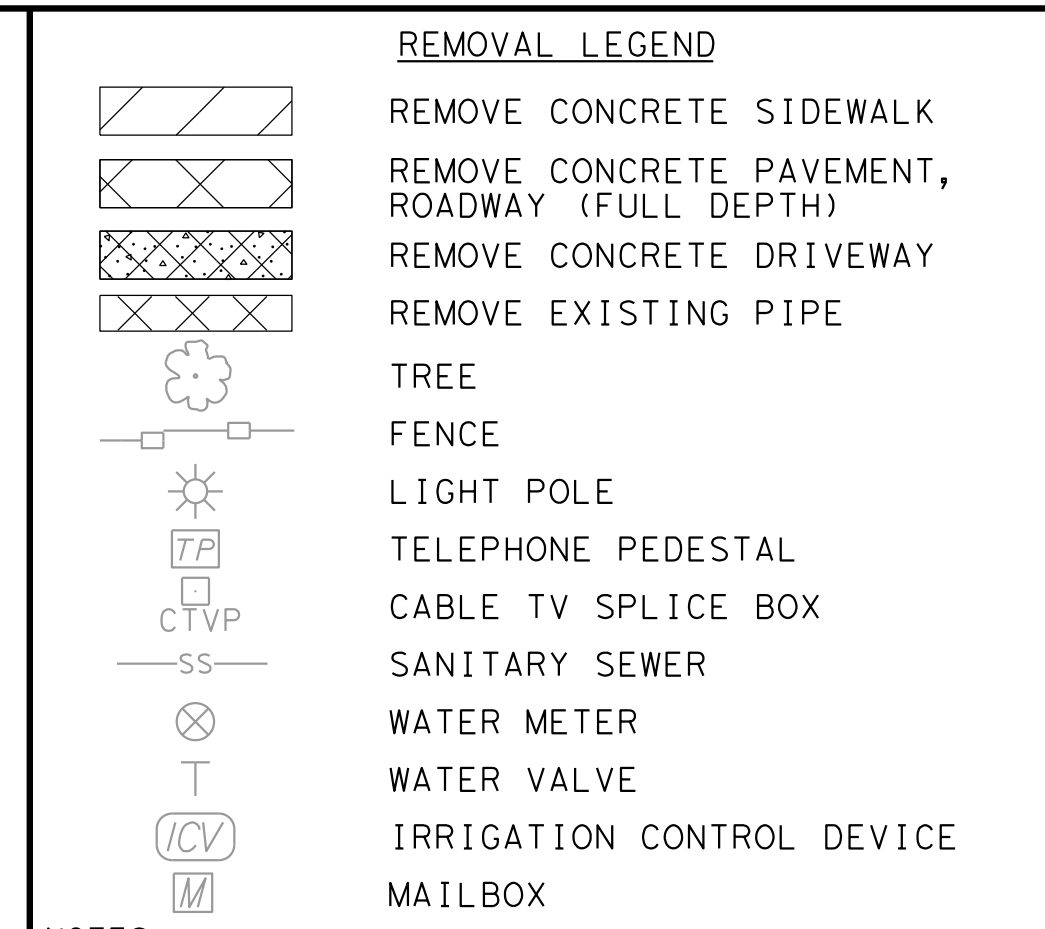
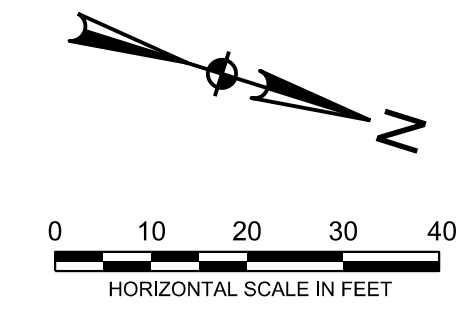
TOTAL QTY SIDEWALK	- 298 SY
TOTAL QTY ROAD PAVEMENT	- 759 SY
TOTAL 18" RCP	- 25 LF
TOTAL 24" RCP	- 2 LF
TOTAL 42" RCP	- 414 LF
TOTAL 48" RCP	- 86 LF
TOTAL 10' CURB INLET	- 1 EA
TOTAL 5'x5' JUNCTION BOX	- 1 EA
TOTAL INLET CONCRETE APRON	- 9 SY
TOTAL EXIST TREE REMOVAL	- 2 EA

EXISTING TREE SCHEDULE

TREE ID	TREE TYPE	SIZE (IN)	REMOVED	INCHES REMOVED
T-1	ELM	14"	N	N/A
T-2	ELM	16"	N	N/A
T-3	ELM	14"	N	N/A
T-4	ELM	14"	N	N/A
T-5	ELM	12"	N	N/A
T-6	ELM	20"	N	N/A
T-7	LIVE OAK	24"	N	N/A
T-8	CREPE MYRTLE	3"	Y	3"
T-9	CREPE MYRTLE	3"	Y	3"
T-10	LIVE OAK	20"	N	N/A
T-11	LIVE OAK	20"	N	N/A
T-12	LIVE OAK	3"	N	N/A
T-13	UNDETERMINED	UNDETERMINED	N	N/A
T-14	ELM	10"	N	N/A
T-15	MAPLE	8"	N	N/A
T-16	OAK	10"	N	N/A
T-17	MULTI OAK	10"	N	N/A
T-18	OAK	6"	N	N/A
T-19	LIVE OAK	9"	N	N/A
T-20	LIVE OAK	9"	N	N/A
T-21	LIVE OAK	10"	N	N/A

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- NOTES:
- A. SAWCUT, DEMOLISH, AND REMOVE EXISTING CONCRETE ROADWAY
 - B. REMOVE EXISTING SIDEWALK
 - C. PLUG AND ABANDON EXIST 24" RCP
 - D. REMOVE 48 LF OF EXISTING 24" RCP
 - E. REMOVE 29 LF OF EXISTING 18" RCP



- NOTES:
1. REMOVAL SHALL BE PHASED AS SHOWN ON THE TRAFFIC CONTROL PLANS. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION.
 2. ALL EXISTING TREES, LANDSCAPING, FENCING, GATES, PRIVATE SIGNS, AND RELATED APPURTENANCES THAT SHALL REMAIN OR BE RELOCATED MUST BE PROTECTED AGAINST CONSTRUCTION DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.
 3. ALL EXISTING FEATURES ARE BASED ON BEST AVAILABLE RECORDS AND FIELD DATA PERFORMED BY CRIADO, DATED MARCH, 2021. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FEATURES BEFORE BEGINNING ANY CONSTRUCTION.
 4. SAWCUT EXISTING PAVEMENT AT ALL PAVEMENT REMOVAL LIMITS. ALL SAWCUTS SHALL BE FULL DEPTH. SAWCUT CONCRETE PAVEMENT INTO SMALLER PIECES AND LIFT WITH LOADER. NO JACK HAMMERING, GUILLOTINE CRUSHERS OR OTHER EQUIPMENT THAT CAUSES VIBRATORY SOIL (NO SEPARATE PAY ITEM).
 5. CONTRACTOR TO MAINTAIN MAIL SERVICE DURING CONSTRUCTION.
 6. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
 7. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
 8. SEE PAVING PLANS FOR REMOVAL CONTROL POINTS
 9. EXISTING ADA RAMPS TO BE REMOVED, INCLUDED ON SIDEWALK REMOVAL QUANTITIES.



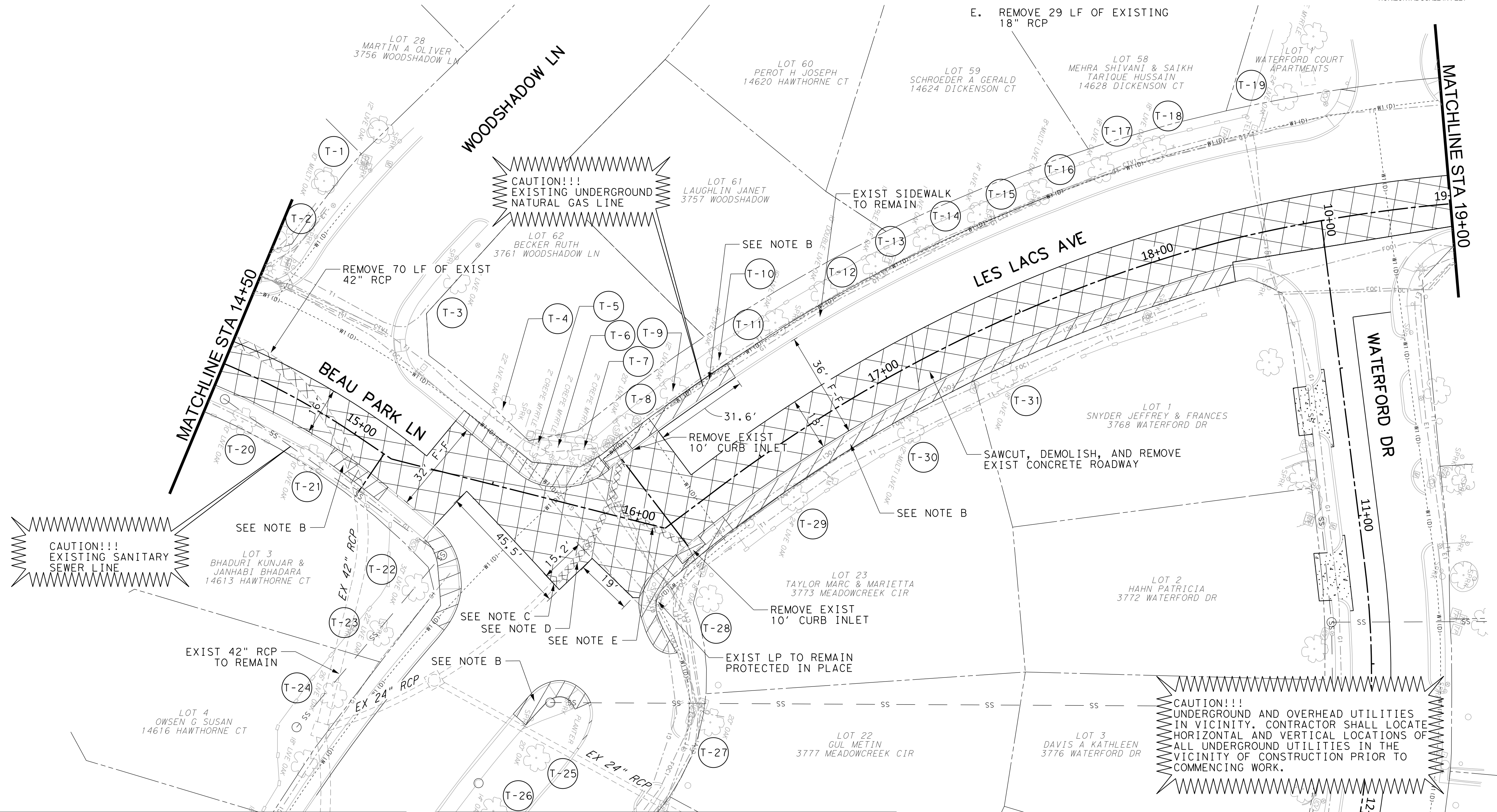
REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

**REMOVAL PLAN
SD LINE 'A' STA 14+50 TO STA 19+00
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		9



REMOVAL QUANTITY PER SHEET

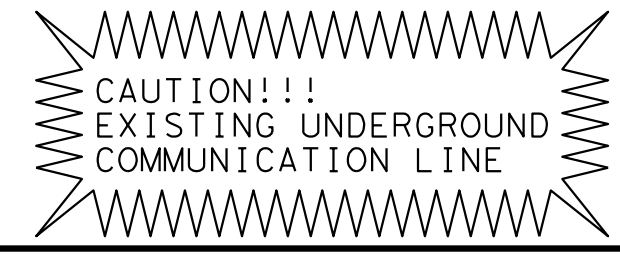
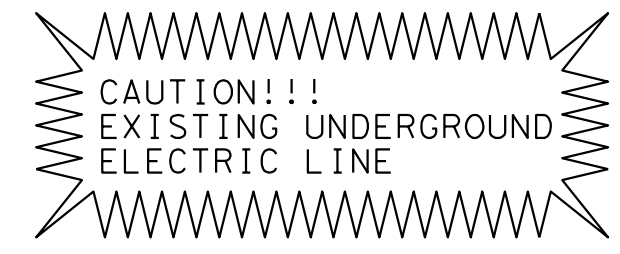
TOTAL QTY SIDEWALK - 252 SY
TOTAL QTY ROAD PAVEMENT - 1004 SY
TOTAL 18" RCP - 29 LF
TOTAL 24" RCP - 48 LF
TOTAL 42" RCP - 70 LF
TOTAL 10' CURB INLET - 2 EA

EXISTING TREE SCHEDULE

TREE ID	TREE TYPE	SIZE (IN)	REMOVED	INCHES REMOVED
T-17	LIVE OAK	18"	N	N/A
T-18	LIVE OAK	18"	N	N/A
T-19	LIVE OAK	24"	N	N/A
T-20	LIVE OAK	10"	N	N/A
T-21	DBL LIVE OAK	10"	N	N/A
T-22	LIVE OAK	30"	N	N/A
T-23	LIVE OAK	22"	N	N/A
T-24	LIVE OAK	26"	N	N/A
T-25	OAK	20"	N	N/A
T-26	OAK	14"	N	N/A
T-27	OAK	20"	N	N/A
T-28	OAK	18"	N	N/A
T-29	LIVE OAK	24"	N	N/A
T-30	MULT LIVE OAK	12"	N	N/A
T-31	LIVE OAK	18"	N	N/A

EXISTING TREE SCHEDULE

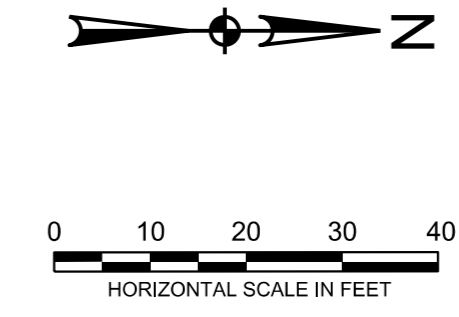
TREE ID	TREE TYPE	SIZE (IN)	REMOVED	INCHES REMOVED
T-1	MULTI OAK	10"	N	N/A
T-2	MULTI OAK	10"	N	N/A
T-3	LIVE OAK	12"	N	N/A
T-4	LIVE OAK	22"	N	N/A
T-5	CREPE MYRTLE	2"	N	N/A
T-6	CREPE MYRTLE	2"	N	N/A
T-7	CREPE MYRTLE	2"	N	N/A
T-8	LIVE OAK	20"	N	N/A
T-9	LIVE OAK	12"	N	N/A
T-10	LIVE OAK	16"	N	N/A
T-11	LIVE OAK	16"	N	N/A
T-12	DBL LIVE OAK	10"	N	N/A
T-13	DBL LIVE OAK	12"	N	N/A
T-14	LIVE OAK	14"	N	N/A
T-15	LIVE OAK	14"	N	N/A
T-16	MULT LIVE OAK	8"	N	N/A



EXISTING UTILITY LOCATIONS SHOWN ARE GENERALLY SCHEMATIC IN NATURE AND MAY NOT ACCURATELY REFLECT THE SIZE AND LOCATION OF EACH PARTICULAR UTILITY. SOME UTILITY LINES AND SURFACE LOCATIONS MAY NOT BE SHOWN. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ACTUAL FIELD LOCATION AND PROTECTION OF EXISTING UTILITIES WHETHER SHOWN OR NOT. CONTRACTOR SHALL ALSO ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING UTILITIES, WHETHER SHOWN OR NOT, DAMAGED BY CONTRACTOR ACTIVITIES. DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATION OF EXISTING UTILITIES SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.

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 6/27/2022
 N:\PROJECTR\14799.00_Addison_Rawhide-Creek-Basin-Drainage\07_DGN\076-Sheets\076-03_Roadway\14799-REM-P-02.dgn

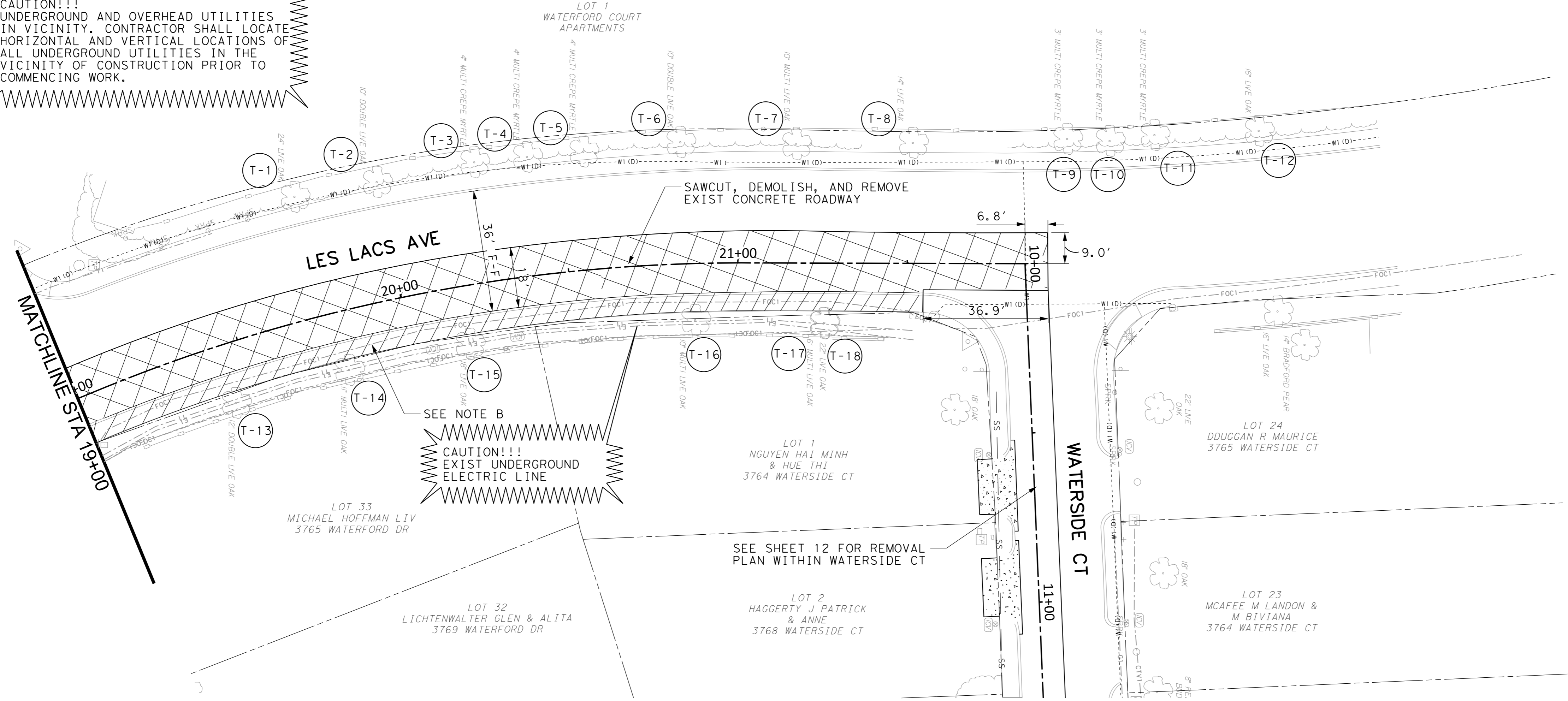
- NOTES:
- A. SAWCUT, DEMOLISH, AND REMOVE EXISTING CONCRETE ROADWAY
 - B. REMOVE EXISTING SIDEWALK



- REMOVAL LEGEND
- REMOVE CONCRETE SIDEWALK
 - REMOVE CONCRETE PAVEMENT, ROADWAY (FULL DEPTH)
 - REMOVE CONCRETE DRIVEWAY
 - REMOVE EXISTING PIPE
 - TREE
 - FENCE
 - LIGHT POLE
 - TELEPHONE PEDESTAL
 - CABLE TV SPLICE BOX
 - SANITARY SEWER
 - WATER METER
 - WATER VALVE
 - IRRIGATION CONTROL DEVICE
 - MAILBOX

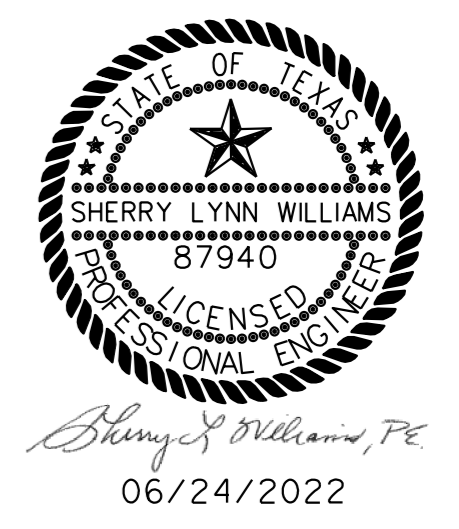
- NOTES:
1. REMOVAL SHALL BE PHASED AS SHOWN ON THE TRAFFIC CONTROL PLANS. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION.
 2. ALL EXISTING TREES, LANDSCAPING, FENCING, GATES, PRIVATE SIGNS, AND RELATED APPURTENANCES THAT SHALL REMAIN OR BE RELOCATED MUST BE PROTECTED AGAINST CONSTRUCTION DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.
 3. ALL EXISTING FEATURES ARE BASED ON BEST AVAILABLE RECORDS AND FIELD DATA PERFORMED BY CRIADO, DATED MARCH, 2021. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FEATURES BEFORE BEGINNING ANY CONSTRUCTION.
 4. SAWCUT EXISTING PAVEMENT AT ALL PAVEMENT REMOVAL LIMITS. ALL SAWCUTS SHALL BE FULL DEPTH. SAWCUT CONCRETE PAVEMENT INTO SMALLER PIECES AND LIFT WITH LOADER. NO JACK HAMMERING, GUILLOTINE CRUSHERS OR OTHER EQUIPMENT THAT CAUSES VIBRATORY SOIL (NO SEPARATE PAY ITEM).
 5. CONTRACTOR TO MAINTAIN MAIL SERVICE DURING CONSTRUCTION.
 6. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
 7. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
 8. SEE PAVING PLANS FOR REMOVAL CONTROL POINTS
 9. EXISTING ADA RAMPS TO BE REMOVED, INCLUDED ON SIDEWALK REMOVAL QUANTITIES.

CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES
IN VICINITY. CONTRACTOR SHALL LOCATE
HORIZONTAL AND VERTICAL LOCATIONS OF
ALL UNDERGROUND UTILITIES IN THE
VICINITY OF CONSTRUCTION PRIOR TO
COMMENCING WORK.



CAUTION!!!
EXIST UNDERGROUND
ELECTRIC LINE

SEE SHEET 12 FOR REMOVAL
PLAN WITHIN WATERSIDE CT



REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

REMOVAL PLAN
SD LINE 'A' STA 19+00 TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		10

EXISTING TREE SCHEDULE				
TREE ID	TREE TYPE	SIZE (IN)	REMOVED	INCHES REMOVED
T-1	LIVE OAK	24"	N	N/A
T-2	DBL LIVE OAK	10"	N	N/A
T-3	MULT LIVE OAK	4"	N	N/A
T-4	MULT LIVE OAK	4"	N	N/A
T-5	MULT LIVE OAK	4"	N	N/A
T-6	DBL LIVE OAK	10"	N	N/A
T-7	MULT LIVE OAK	10"	N	N/A
T-8	LIVE OAK	14"	N	N/A
T-9	MULT CREPE MYRTLE	3"	N	N/A
T-10	MULT CREPE MYRTLE	3"	N	N/A
T-11	MULT CREPE MYRTLE	3"	N	N/A
T-12	LIVE OAK	16"	N	N/A
T-13	DBL LIVE OAK	12"	N	N/A
T-14	MULT LIVE OAK	11"	N	N/A
T-15	LIVE OAK	18"	N	N/A
T-16	MULT LIVE OAK	10"	N	N/A
T-17	MULT LIVE OAK	6"	N	N/A
T-18	LIVE OAK	22"	N	N/A

REMOVAL QUANTITY PER SHEET
TOTAL QTY SIDEWALK - 148 SY
TOTAL QTY ROAD PAVEMENT - 578 SY

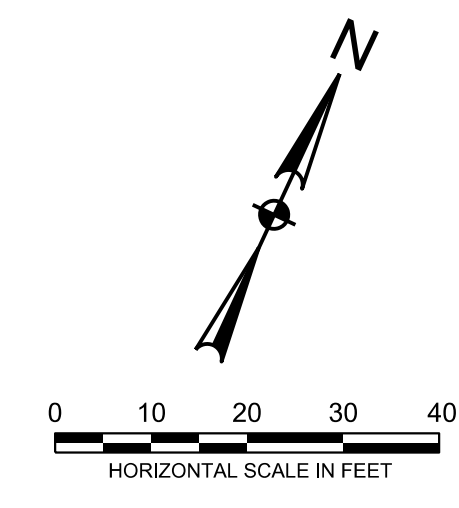
CAUTION!!!
EXISTING UNDERGROUND
ELECTRIC LINE

CAUTION!!!
EXISTING UNDERGROUND
COMMUNICATION LINE

EXISTING UTILITY LOCATIONS SHOWN ARE
GENERALLY SCHEMATIC IN NATURE AND MAY
NOT ACCURATELY REFLECT THE SIZE AND
LOCATION OF EACH PARTICULAR UTILITY.
SOME UTILITY LINES AND SURFACE LOCATIONS
MAY NOT BE SHOWN. CONTRACTORS SHALL
ASSUME RESPONSIBILITY FOR ACTUAL FIELD
LOCATION AND PROTECTION OF EXISTING
UTILITIES WHETHER SHOWN OR NOT. CONTRACTOR
SHALL ALSO ASSUME RESPONSIBILITY FOR
REPAIRS TO EXISTING UTILITIES, WHETHER
SHOWN OR NOT, DAMAGED BY CONTRACTOR
ACTIVITIES. DIFFERENCES IN HORIZONTAL OR
VERTICAL LOCATION OF EXISTING UTILITIES
SHALL NOT BE A BASIS FOR ADDITIONAL
COMPENSATION.

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- NOTES:
- A. SAWCUT, DEMOLISH, AND REMOVE EXISTING CONCRETE ROADWAY
 - B. REMOVE EXISTING SIDEWALK
 - C. REMOVE 22 SY OF EXIST CONCRETE DRIVEWAY PAVEMENT
 - D. REMOVE 21 SY OF EXIST CONCRETE DRIVEWAY PAVEMENT
 - E. REMOVE 25 SY OF EXIST CONCRETE DRIVEWAY PAVEMENT
 - F. REMOVE 24 SY OF EXIST CONCRETE DRIVEWAY PAVEMENT
 - G. EXISTING STORM LATERAL TO REMAIN



- REMOVAL LEGEND
- REMOVE CONCRETE SIDEWALK
 - REMOVE CONCRETE PAVEMENT, ROADWAY (FULL DEPTH)
 - REMOVE CONCRETE DRIVEWAY
 - REMOVE EXISTING PIPE
 - TREE
 - FENCE
 - LIGHT POLE
 - TELEPHONE PEDESTAL
 - CABLE TV SPLICE BOX
 - SANITARY SEWER
 - WATER METER
 - WATER VALVE
 - IRRIGATION CONTROL DEVICE
 - MAILBOX

- NOTES:
1. REMOVAL SHALL BE PHASED AS SHOWN ON THE TRAFFIC CONTROL PLANS. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION.
 2. ALL EXISTING TREES, LANDSCAPING, FENCING, GATES, PRIVATE SIGNS, AND RELATED APPURTENANCES THAT SHALL REMAIN OR BE RELOCATED MUST BE PROTECTED AGAINST CONSTRUCTION DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.
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 6. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
 7. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
 8. SEE PAVING PLANS FOR REMOVAL CONTROL POINTS
 9. EXISTING ADA RAMP TO BE REMOVED, INCLUDED ON SIDEWALK REMOVAL QUANTITIES.



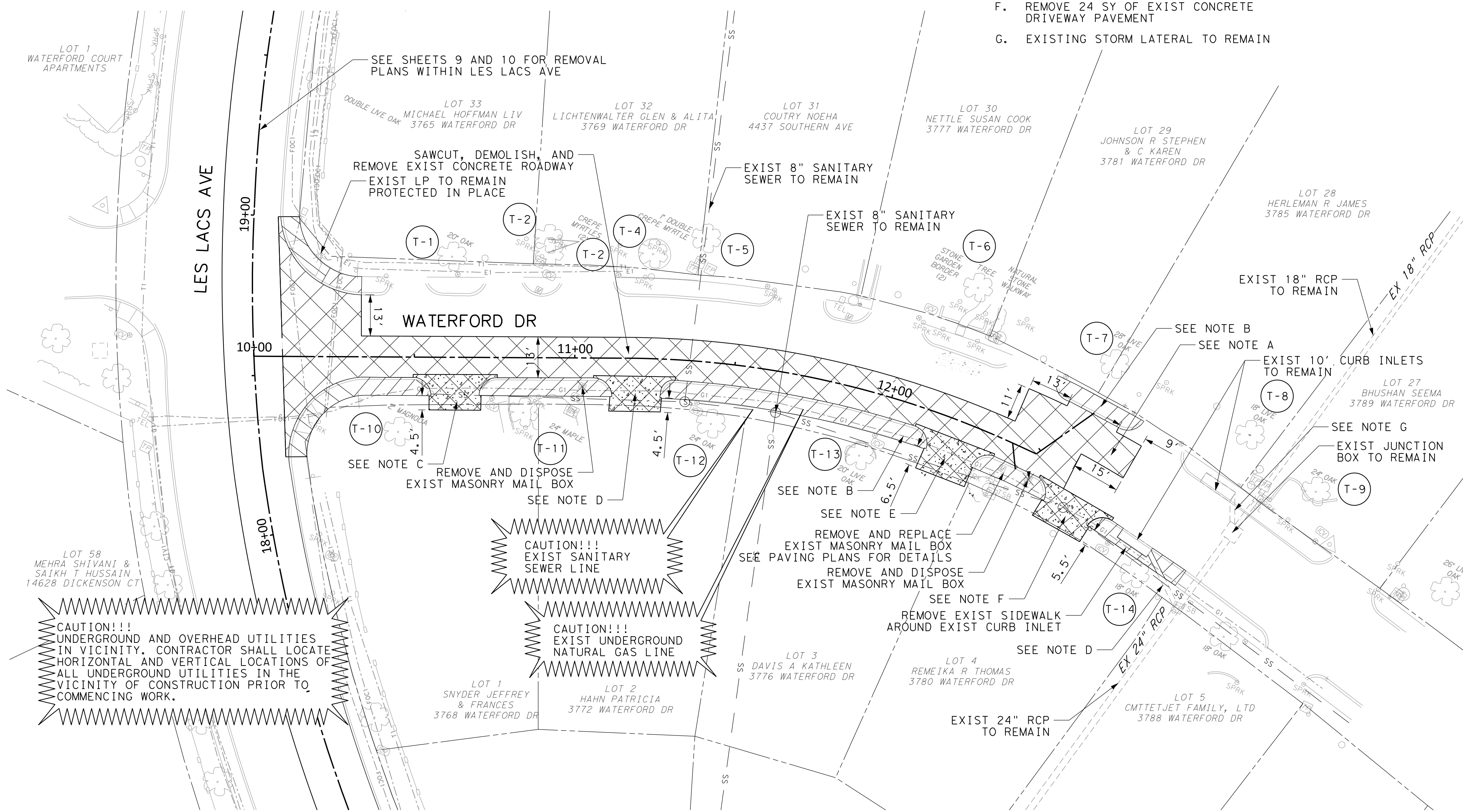
REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

**REMOVAL PLAN
SD LINE 'B' BEGIN TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		11



CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.

CAUTION!!!
EXIST SANITARY SEWER LINE

CAUTION!!!
EXIST UNDERGROUND NATURAL GAS LINE

CAUTION!!!
EXISTING UNDERGROUND ELECTRIC LINE

CAUTION!!!
EXISTING UNDERGROUND COMMUNICATION LINE

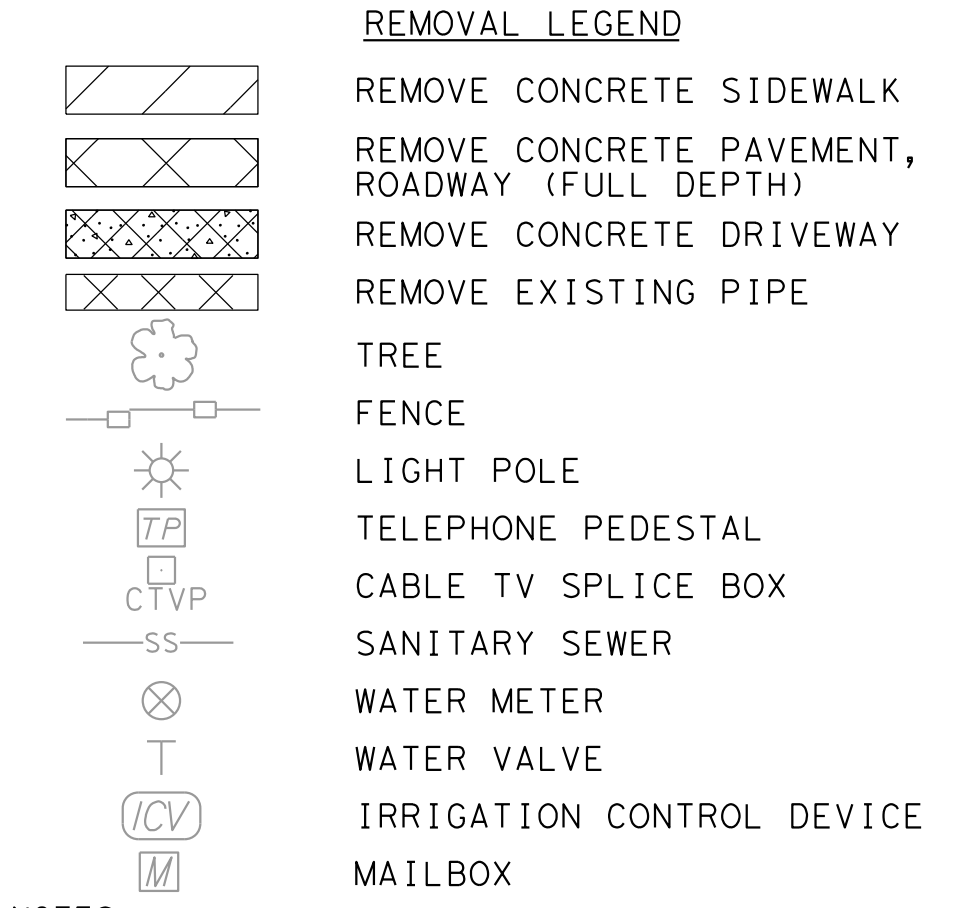
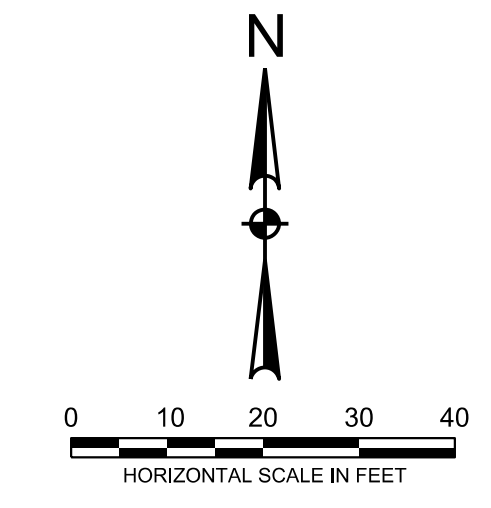
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REMOVAL QUANTITY PER SHEET
TOTAL QTY SIDEWALK - 156 SY
TOTAL QTY DRIVEWAY - 92 SY
TOTAL QTY ROAD PAVEMENT - 473 SY
TOTAL QTY MAIL BOX - 2 EA

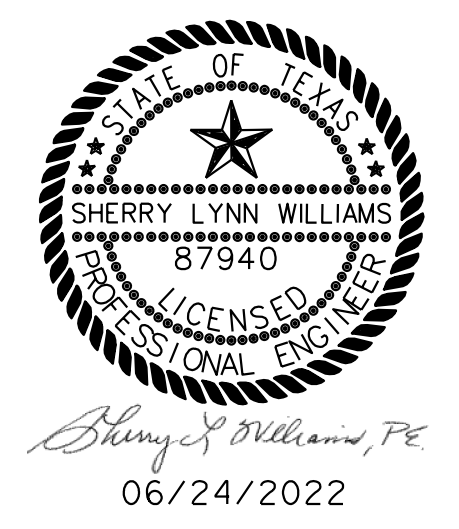
EXISTING TREE SCHEDULE				
TREE ID	TREE TYPE	SIZE (IN)	REMOVED	INCHES REMOVED
T-1	OAK	20"	N	N/A
T-2	CREPE MYRTLE	UNDETERMINED	N	N/A
T-3	CREPE MYRTLE	UNDETERMINED	N	N/A
T-4	DBL CREPE MYRTLE	1"	N	N/A
T-5	DBL CREPE MYRTLE	1"	N	N/A
T-6	UNDETERMINED	UNDETERMINED	N	N/A
T-7	LIVE OAK	28"	N	N/A
T-8	LIVE OAK	18"	N	N/A
T-9	OAK	24"	N	N/A
T-10	MAGNOLIA	2"	N	N/A
T-11	MAPLE	24"	N	N/A
T-12	OAK	24"	N	N/A
T-13	LIVE OAK	20"	N	N/A
T-14	OAK	18"	N	N/A

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- NOTES:
- A. REMOVE 22 SY OF EXIST CONCRETE DRIVEWAY PAVEMENT
 - B. REMOVE EXISTING SIDEWALK



- NOTES:
1. REMOVAL SHALL BE PHASED AS SHOWN ON THE TRAFFIC CONTROL PLANS. SEE TRAFFIC CONTROL PLANS FOR MORE INFORMATION.
 2. ALL EXISTING TREES, LANDSCAPING, FENCING, GATES, PRIVATE SIGNS, AND RELATED APPURTENANCES THAT SHALL REMAIN OR BE RELOCATED MUST BE PROTECTED AGAINST CONSTRUCTION DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.
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 8. SEE PAVING PLANS FOR REMOVAL CONTROL POINTS
 9. EXISTING ADA RAMPS TO BE REMOVED, INCLUDED ON SIDEWALK REMOVAL QUANTITIES.



REV. NO.	DATE	DESCRIPTION	BY
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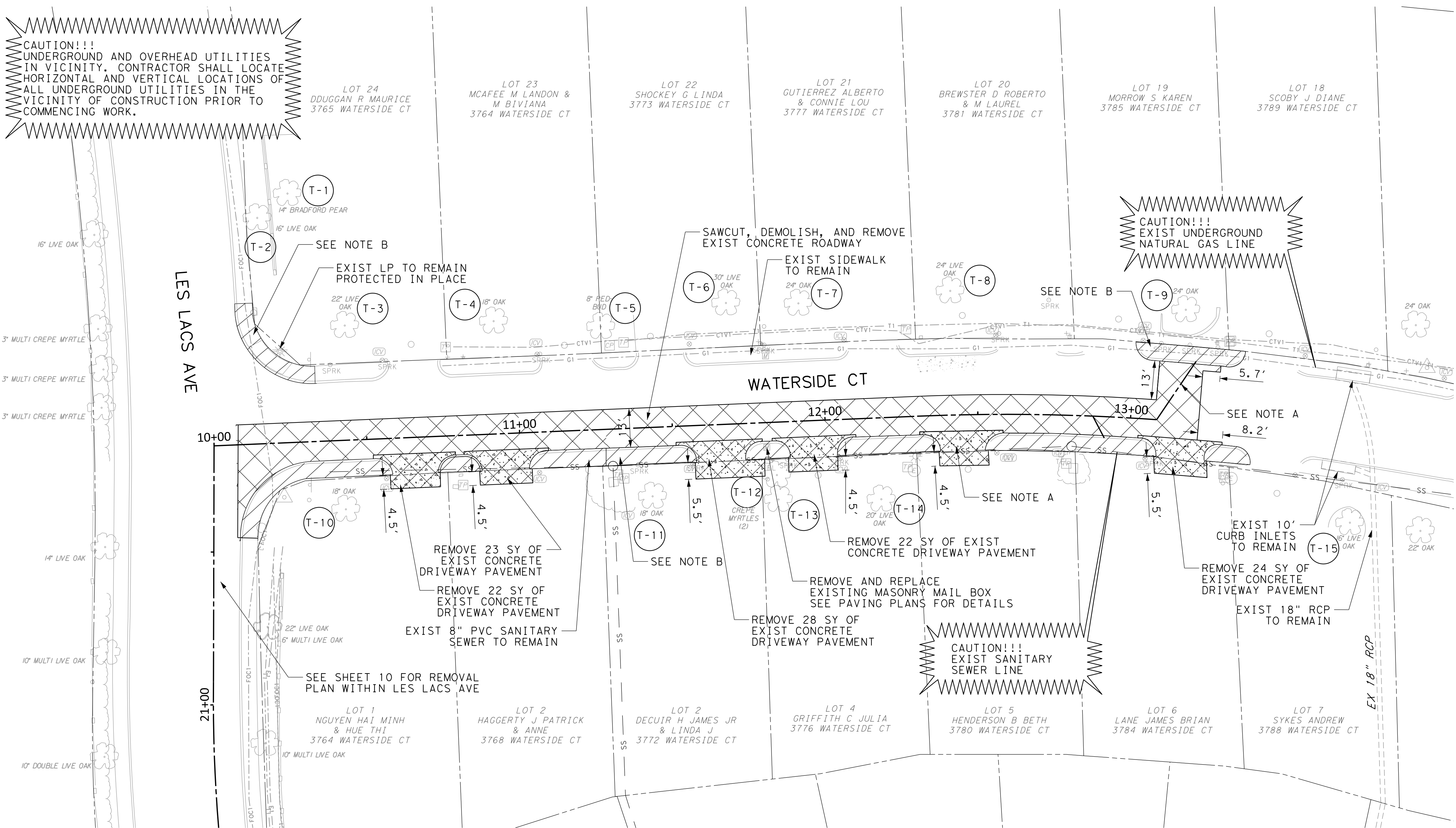


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

**REMOVAL PLAN
SD LINE 'C' BEGIN TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		12

CAUTION!!!
UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.



EXISTING TREE SCHEDULE

TREE ID	TREE TYPE	SIZE (IN)	REMOVED	INCHES REMOVED
T-1	BRADFORD PEAR	14"	N	N/A
T-2	LIVE OAK	16"	N	N/A
T-3	LIVE OAK	22"	N	N/A
T-4	OAK	18"	N	N/A
T-5	REDBUD	8"	N	N/A
T-6	LIVE OAK	30"	N	N/A
T-7	OAK	24"	N	N/A
T-8	LIVE OAK	24"	N	N/A
T-9	OAK	24"	N	N/A
T-10	OAK	18"	N	N/A
T-11	OAK	18"	N	N/A
T-12	CREPE MYRTLE	UNDETERMINED	N	N/A
T-13	CREPE MYRTLE	UNDETERMINED	N	N/A
T-14	LIVE OAK	20"	N	N/A
T-15	LIVE OAK	16"	N	N/A

REMOVAL QUANTITY PER SHEET
 TOTAL QTY SIDEWALK - 160 SY
 TOTAL QTY DRIVEWAY - 141 SY
 TOTAL QTY ROAD PAVEMENT - 464 SY

CAUTION!!!
EXISTING UNDERGROUND ELECTRIC LINE

CAUTION!!!
EXISTING UNDERGROUND COMMUNICATION LINE

Existing utility locations shown are generally schematic in nature and may not accurately reflect the size and location of each particular utility. Some utility lines and surface locations may not be shown. Contractors shall assume responsibility for actual field location and protection of existing utilities whether shown or not. Contractor shall also assume responsibility for repairs to existing utilities whether shown or not damaged by contractor activities. Differences in horizontal or vertical location of existing utilities shall not be a basis for additional compensation.

TRAFFIC CONTROL GENERAL NOTES

1. MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL MEASURES IMPLEMENTED DURING CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), LATEST REVISION, AND THE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) TRAFFIC PROJECT ENGINEERING STANDARDS BC, WZ, AND TCP.
2. THESE TRAFFIC CONTROL PLANS SERVE AS A GUIDE FOR THE SEQUENCING OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THESE TRAFFIC CONTROL PLANS DO NOT ATTEMPT TO ADDRESS EVERY ASPECT OF CONSTRUCTION THAT IS REQUIRED OR COULD BE ENCOUNTERED DURING EACH PHASE OF CONSTRUCTION. THE CONTRACTOR HAS THE SOLE RESPONSIBILITY OF CONSTRUCTING THE PROPOSED IMPROVEMENTS AND PROVIDING FOR THE SAFE HANDLING OF TRAFFIC AND WORKER PROTECTION DURING CONSTRUCTION.
3. THE CONTRACTOR HAS THE OPTION TO PREPARE AND SUBMIT AN ALTERNATE TRAFFIC CONTROL PLAN FOR THE PROJECT. PROJECT ENGINEER TO REVIEW. THE CONTRACTOR SHALL NOT IMPLEMENT ANY SUCH ALTERNATE PLAN WITHOUT THE PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER. THE ALTERNATE CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL PLAN SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS. THE CONTRACTOR WILL NOT BE COMPENSATED FOR THE DESIGN OF ALTERNATE CONSTRUCTION SEQUENCE/ TRAFFIC CONTROL PLAN WHETHER ACCEPTED OR REJECTED BY THE PROJECT ENGINEER AND ANY SUCH EFFORT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
4. THE PROJECT ENGINEER MAY DIRECT THE CONTRACTOR TO FURNISH AND INSTALL ADDITIONAL TRAFFIC CONTROL MEASURES BEYOND THAT SHOWN IN THE TRAFFIC CONTROL PLANS AS REQUIRED TO MAINTAIN SAFETY OF THE TRAVELING PUBLIC, PEDESTRIANS, AND THE CONTRACTOR DURING CONSTRUCTION. ANY SUCH ADDITIONAL TRAFFIC CONTROL MEASURES WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
5. THE CONTRACTOR SHALL ENSURE THAT ALL IMPLEMENTED TRAFFIC CONTROL MEASURES ARE MAINTAINED IN A CLEAN AND FUNCTIONAL CONDITION AT ALL TIMES, INCLUDING MAINTENANCE DUE TO ACTS OF VANDALISM OR ACCIDENT. THE CONTRACTOR SHALL HAVE ADEQUATE REPLACEMENT TRAFFIC CONTROL DEVICES AVAILABLE, AT ALL TIMES, TO REPLACE THOSE SO DAMAGED.
6. IN ADDITION TO THE ONES SHOWN ON THE TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL HAVE TRAILER MOUNTED FLASHING ARROW PANELS AVAILABLE (IN WORKING ORDER) AT ALL TIMES AT THE PROJECT, TO BE USED WHEN NEEDED AS DIRECTED BY THE PROJECT ENGINEER. TRAILER MOUNTED FLASHING ARROW PANELS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
7. FLAGGER CONTROL SHALL BE IMPLEMENTED WHEN REQUIRED BY THE STANDARDS OR AS DIRECTED BY THE PROJECT ENGINEER TO PROVIDE FOR THE SAFE HANDLING OF TRAFFIC DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. FLAGGER CONTROL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
8. THE CONTRACTOR SHALL IMPLEMENT TRAFFIC CONTROL MEASURES AS REQUIRED BY THE TMUTCD, LATEST EDITION, AND AS DIRECTED BY THE PROJECT ENGINEER TO GUIDE AND DIRECT PEDESTRIANS THROUGH, OR AROUND, AS APPLICABLE, THE VARIOUS CONSTRUCTION ZONES. PEDESTRIAN ROUTES SHALL BE ADEQUATELY FENCED OFF OR SEPARATED FROM UTILITY WORK ZONES TO PREVENT PEDESTRIAN ACCESS TO POTENTIALLY DANGEROUS AREAS. SUCH TRAFFIC CONTROL MEASURES REQUIRED TO MEET THESE PROVISIONS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
9. THE CONTRACTOR SHALL INSTALL APPROPRIATE CHANNELIZING DEVICES, AT SPACING SPECIFIED BY THE TMUTCD FOR THE POSTED SPEED INDICATED. CHANNELIZING DEVICES SHALL BE PLACED ALONG THE LIMITS OF CONSTRUCTION ZONE AND TRAVEL WAYS TO DELINEATE ONGOING CONSTRUCTION OPERATIONS AND TO PROVIDE FOR THE SAFE HANDLING OF TRAFFIC DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. SUCH CHANNELIZING DEVICES SHALL BE LOCATED ALONG THE PERIMETER OF THE CONSTRUCTION ZONE AND SHALL NOT BE PLACED WITHIN TRAVEL LANES THAT ARE SCHEDULED TO REMAIN OPEN. SUCH TRAFFIC CONTROL MEASURES PROVIDED TO MEET THESE REQUIREMENTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
10. THE CONTRACTOR SHALL NOTIFY LOCAL POLICE AND FIRE DEPARTMENT OFFICIALS OF IMPENDING CONSTRUCTION PHASE TRAFFIC SHIFTS AND LANE CLOSURES TWO WORKING DAYS PRIOR TO SHIFTS OR CLOSURES.
11. THE CONTRACTOR SHALL INSTALL SAFETY FENCING AND SHORING MEASURES OF THE SIZE AND TYPE REQUIRED BY FEDERAL AND STATE REGULATIONS AROUND ALL OPEN EXCAVATIONS AT THE END OF EACH WORK DAY AND WHEN WORKERS ARE PRESENT OR ABSENT FROM THE OPEN EXCAVATIONS, OR AS DIRECTED BY THE PROJECT ENGINEER. SUCH FENCING SHALL NOT OBSTRUCT SIGHT LINES OF THE TRAVELING PUBLIC. ANY SUCH CONSTRUCTION FENCING REQUIRED TO MEET THIS PROVISION SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
12. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE THROUGHOUT THE PROJECT LIMITS DURING ALL CONSTRUCTION PHASES TO ENSURE SAFE ROAD CONDITIONS AND PREVENT FLOODING OF PROPERTIES AND IMPROVEMENTS ADJACENT TO THE PROJECT AREA. SUCH WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
13. THE CONTRACTOR SHALL COMPLETELY REMOVE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS OR THE INTENT THEREOF. METHODS FOR THE REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THE CONTRACTOR COMMENCING ANY REQUIRED REMOVAL OF EXISTING PAVEMENT MARKINGS. THE PAVEMENT MARKINGS SHALL BE REMOVED BY ANY METHOD THAT DOES NOT MATERIALLY DAMAGE THE SURFACE OR TEXTURE OF THE PAVEMENT. PAVEMENT MARKING REMOVAL BY OVER-PAINING IS PROHIBITED. SUCH MEASURES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
14. AFTER INSTALLATION OF DRAINAGE STRUCTURES, STORM SEWERS, PUBLIC OR PRIVATE UTILITY FACILITY BY OPEN CUT BENEATH EXISTING PAVEMENTS CARRYING TRAFFIC DURING CONSTRUCTION, THE PAVEMENT SHALL BE RESTORED TO PROVIDE STRUCTURALLY SOUND SUPPORT AND SATISFACTORY RIDING SURFACE, PRIOR TO RE-OPENING ROADWAY TO TRAFFIC.
15. THE CONTRACTOR SHALL COVER OR TEMPORARILY REMOVE EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS OR THE INTENT THEREOF. EXISTING SIGNS THAT DO NOT CONFLICT WITH THE TRAFFIC CONTROL PLANS OR THE INTENT THEREOF BUT REQUIRE RELOCATION DUE TO PHYSICAL CONFLICTS SHALL NOT BE RELOCATED UNTIL THE TEMPORARY SIGN SUPPORTS HAVE BEEN INSTALLED TO ALLOW FOR THE IMMEDIATE RELOCATION OF SUCH SIGNS. SUCH MEASURES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
16. ALL TRAFFIC CONTROL DEVICES THAT ARE NOT REQUIRED FOR ONGOING CONSTRUCTION OPERATIONS SHALL BE REMOVED WHEN NOT NEEDED. WHEN WORK IS SUSPENDED FOR SHORT OR EXTENDED PERIODS, ADVANCE WARNING, REGULATORY, AND/OR GUIDE SIGNS THAT ARE NO LONGER APPROPRIATE FOR THE PRESENT CONDITIONS SHALL BE REMOVED FROM THE WORK AREA OR COVERED SO THEY ARE NOT VISIBLE TO THE TRAVELING PUBLIC.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS AT ALL TIMES DURING CONSTRUCTION OF ALL OPERATIONAL SERVICES SUCH AS TRASH COLLECTION, POSTAL SERVICE, UTILITY METER READING, ETC. TO PREVENT INTERRUPTION OR DELAYS OF THE RESPECTIVE SERVICES. ACCESS TO PROPERTY ALONG THE CORRIDOR SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONSTRUCTION DURATION. THIS MAINTENANCE SHALL BE COORDINATED WITH WITH THE PROJECT ENGINEER AND SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT.
18. WORK ZONE PAVEMENT MARKINGS SHALL BE INSTALLED PER TXDOT WZ TRAFFIC PROJECT ENGINEERING STANDARD SHEETS. WORK ZONE MARKINGS AND MATERIALS SHALL BE INSTALLED PER TXDOT ITEM 662.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDITION OF TEMPORARILY REMOVED EXISTING SIGNS. REMOVED SIGNS MUST BE IN SAME OR BETTER CONDITION WHEN REINSTALLED.
20. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ANY LOCAL STAGING AREA (IF AVAILABLE) WITH THE TOWN PRIOR TO IMPLEMENTATION.
21. IF ANY EXISTING UTILITIES ARE ENCOUNTERED DURING OPERATIONS AND DAMAGED THAT RESULTS IN A LOSS OF THE UTILITY TO THE RESIDENTS THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE TOWN AND REPAIR THE DAMAGE AS SOON AS POSSIBLE TO THE SATISFACTION OF THE TOWN OR THE PROJECT ENGINEER. ANY DAMAGE REPAIR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
22. THE CONTRACTOR MUST MAINTAIN AN ADA AND TAS COMPLIANT PATH TO HOMES WITHIN THE WORK AREA.
23. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
24. THE CONTRACTOR SHALL LIMIT DRIVEWAY CLOSURES AND BACKFILL / PLATE TRENCHES IN FRONT OF DRIVEWAYS TO MAINTAIN ACCESS AFTER HOURS OF OPERATION.

SUGGESTED TRAFFIC CONTROL NARRATIVE

PRIOR TO START OF CONSTRUCTION:
 INSTALL TEMPORARY EROSION CONTROL ELEMENTS.
 NOTIFY PROPERTY OWNERS OF CONSTRUCTION OPERATIONS A MINIMUM OF 24 HOURS IN ADVANCE.

PHASE 1 CONSTRUCTION

INSTALL ADVANCE WARNING SIGNS AND ALL TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES AS PER NOTE 2.

CONSTRUCT UNDERGROUND STORMTRAP DETENTION SYSTEM GENERALLY CONTAINED WITHIN THE EXISTING TRAIL BETWEEN MARSH LN AND WOODWAY DR AND SOUTH OF BROOKWOOD LN. AFTER COMPLETION, CONSTRUCTION SHALL BEGIN AT THE UPSTREAM WHERE THE TRAIL INTERSECTS THE TRAIL BETWEEN WHITMAN AND GREENLEAF CT. TRAILS SHALL BE CLOSED OFF BY STAGES AS SHOWN ON THE PHASE 1 TRAFFIC CONTROL PLANS.

PHASE 2 CONSTRUCTION

INSTALL ADVANCE WARNING SIGNS AND ALL TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES AS PER NOTE 2.

CONSTRUCT STORMDRAIN TRUNKLINE GENERALLY CONTAINED WITHIN THE EASTBOUND LANE OF BROOKWOOD LN FROM STA 11+80± TO STA 13+20±. ROADWAY AND SIDEWALK SHALL BE RECONSTRUCTED TO MATCH EXISTING FINISH. BROOKWOOD LN SHALL FUNCTION AS A ONE-WAY ROAD WITH ONLY WESTBOUND TRAFFIC FOR STAGES 1 AND 2 AND EASTBOUND TRAFFIC FOR STAGE 3. DETOURS SHALL BE INSTALLED AS SHOWN ON PLANS FOR ACCESS TO BEAU PARK LN.

PHASE 3 CONSTRUCTION

INSTALL ADVANCE WARNING SIGNS AND ALL TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES AS PER NOTE 2.

CONSTRUCT STORMDRAIN TRUNKLINE GENERALLY CONTAINED WITHIN THE NORTHBOUND LANE OF BEAU PARK LN FROM STA 13+20± TO STA 15+30±. ROADWAY AND SIDEWALK SHALL BE RECONSTRUCTED TO MATCH EXISTING FINISH. BEAU PARK LN SHALL FUNCTION AS A ONE-WAY ROAD WITH ONLY SOUTHBOUND TRAFFIC FOR STAGES 1. STAGE 1 REQUIRES THE CLOSING OF THE SOUTHBOUND LANE FROM WOODSHADOW LN TO BROOKWOOD LN. THE PROPOSED INLET AND LATERAL SHALL BE CONSTRUCTED IN STAGE 2. DETOURS SHALL BE INSTALLED AS SHOWN ON PLANS TO DIRECT THRU TRAFFIC TOWARDS LES LACS AVE AND BROOKWOOD DR.

PHASE 4 CONSTRUCTION

INSTALL ADVANCE WARNING SIGNS AND ALL TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES AS PER NOTE 2.

CONSTRUCT STORMDRAIN TRUNKLINE SPANNING THE WESTSIDE OF THE BEAU PARK LN AND LES LACS AVE INTERSECTION FROM STA 15+30± TO STA 16+00±. ROADWAY AND SIDEWALK SHALL BE RECONSTRUCTED TO MATCH EXISTING FINISH. THE SECTION OF BEAU PARK LN FROM WOODSHADOW LN TO LES LACS AVE SHALL FUNCTION AS A ONE-WAY ROAD WITH ONLY NORTHBOUND TRAFFIC FOR STAGES. LES LACS AVE SHALL FUNCTION AS A TWO-WAY ROAD WITH WESTBOUND AND EASTBOUND TRAFFIC RUNNING ALONG THE EXISTING WESTBOUND LANE. THE EASTBOUND LANE FROM WATERFORD DR TO BEAU PARK LN SHALL BE SHUT OFF FOR RECONSTRUCTION. DETOURS SHALL BE INSTALLED AS SHOWN ON PLANS TO DIRECT THRU TRAFFIC TOWARDS LES LACS AVE AND BEAU PARK LN.

PHASE 5 CONSTRUCTION

INSTALL ADVANCE WARNING SIGNS AND ALL TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES AS PER NOTE 2.

CONSTRUCT STORMDRAIN TRUNKLINE GENERALLY CONTAINED WITHIN THE WESTBOUND LANE OF LES LACS AVE FROM STA 16+00± TO END OF STORM DRAIN LINE 'A'. CONSTRUCT WESTBOUND PAVEMENT AND SIDEWALK TO END OF LES LACS PAVING LIMITS AS SHOWN ON PLANS. ROADWAY AND SIDEWALK SHALL BE RECONSTRUCTED TO MATCH EXISTING FINISH. LES LACS AVE SHALL FUNCTION AS TWO-WAY ROAD WITH WESTBOUND AND EASTBOUND TRAFFIC CONTAINED ALONG THE EXISTING EASTBOUND LN FOR BOTH STAGES. DETOURS SHALL BE INSTALLED AS SHOWN ON PLANS TO DIRECT THRU TRAFFIC TOWARDS WATERFORD DR AND LES LACS AVE. FLAGGERS SHALL BE REQUIRED FOR THRU TRAFFIC WITHIN LES LACS AVE AND WATERSIDE CT.

PHASE 6 CONSTRUCTION

INSTALL ADVANCE WARNING SIGNS AND ALL TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES AS PER NOTE 2.

CONSTRUCT STORMDRAIN TRUNKLINE GENERALLY CONTAINED WITHIN THE EASTBOUND LANE OF WATERFORD DR FROM BEGIN TO STA 12+58± FOR STAGE 1 AND FROM STA 12+58 TO END FOR STAGE 2. CONSTRUCT WESTBOUND AND EASTBOUND PAVEMENT AND SIDEWALK AS SHOWN ON PLANS. ROADWAY AND SIDEWALK SHALL BE RECONSTRUCTED TO MATCH EXISTING FINISH. WATERFORD DR SHALL FUNCTION AS ONE-WAY ROAD WITH WESTBOUND TRAFFIC ONLY FOR STAGE 1. STAGES 2 AND 3 SHALL REQUIRE ONLY EASTBOUND THRU TRAFFIC FOR CERTAIN SEGMENTS AS SHOWN ON PLANS. DETOURS SHALL BE INSTALLED AS SHOWN ON PLANS TO DIRECT THRU TRAFFIC TOWARDS WATERFORD DR AND LES LACS AVE.

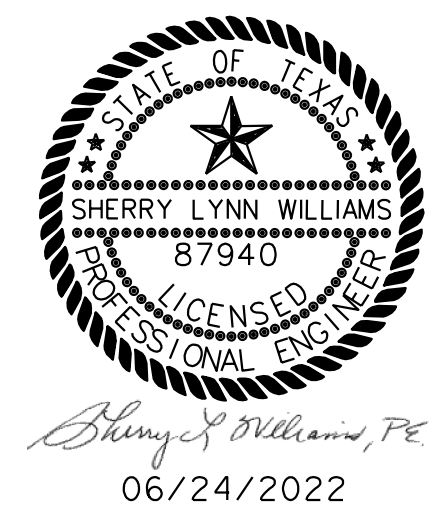
PHASE 7 CONSTRUCTION

INSTALL ADVANCE WARNING SIGNS AND ALL TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES AS PER NOTE 2.

CONSTRUCT STORMDRAIN TRUNKLINE GENERALLY CONTAINED WITHIN THE EASTBOUND LANE OF WATERSIDE CT FROM BEGIN TO STA 13+15± FOR STAGE 1 AND FROM STA 13+15± TO END FOR STAGE 2. CONSTRUCT WESTBOUND AND EASTBOUND PAVEMENT AND SIDEWALK AS SHOWN ON PLANS. ROADWAY AND SIDEWALK SHALL BE RECONSTRUCTED TO MATCH EXISTING FINISH. WATERSIDE CT SHALL FUNCTION AS ONE-WAY ROAD WITH SINGLE DIRECTIONAL TRAFFIC. FLAGGERS SHALL BE REQUIRED TO DIRECT THRU TRAFFIC. STAGES 2 AND 3 SHALL REQUIRE A SHORT SINGLE DIRECTIONAL THRU TRAFFIC SPAN.

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TXDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TXDOT STANDARDS.
3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.



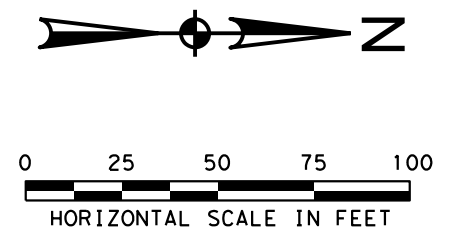
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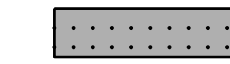
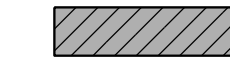
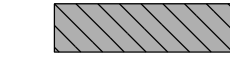




CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
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 FIRM NO. F-4373
Civil Engineering | Land Surveying | Subsurface Utility Engineering | ROW/CE&I

**TRAFFIC CONTROL PLAN
 GENERAL NOTES**
**ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS**
TOWN OF ADDISON, TEXAS

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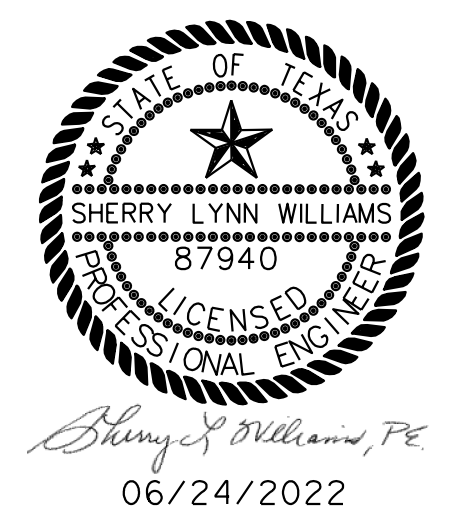


TCP LEGEND

-  PHASE 1 CONSTRUCTION
-  PHASE 2 CONSTRUCTION
-  PHASE 3 CONSTRUCTION
-  PHASE 4 CONSTRUCTION
-  PHASE 5 CONSTRUCTION
-  PHASE 6 CONSTRUCTION
-  PHASE 7 CONSTRUCTION

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.



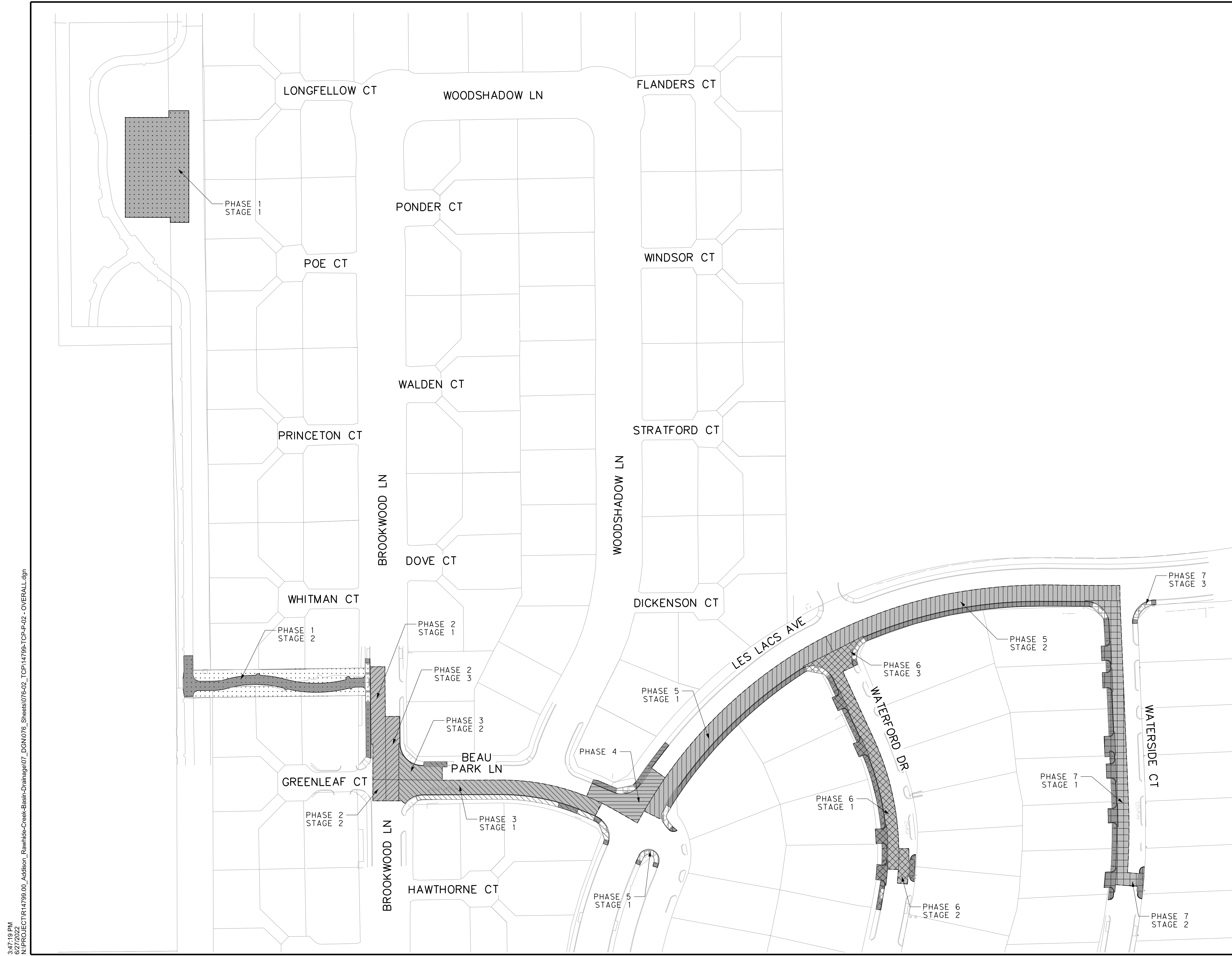
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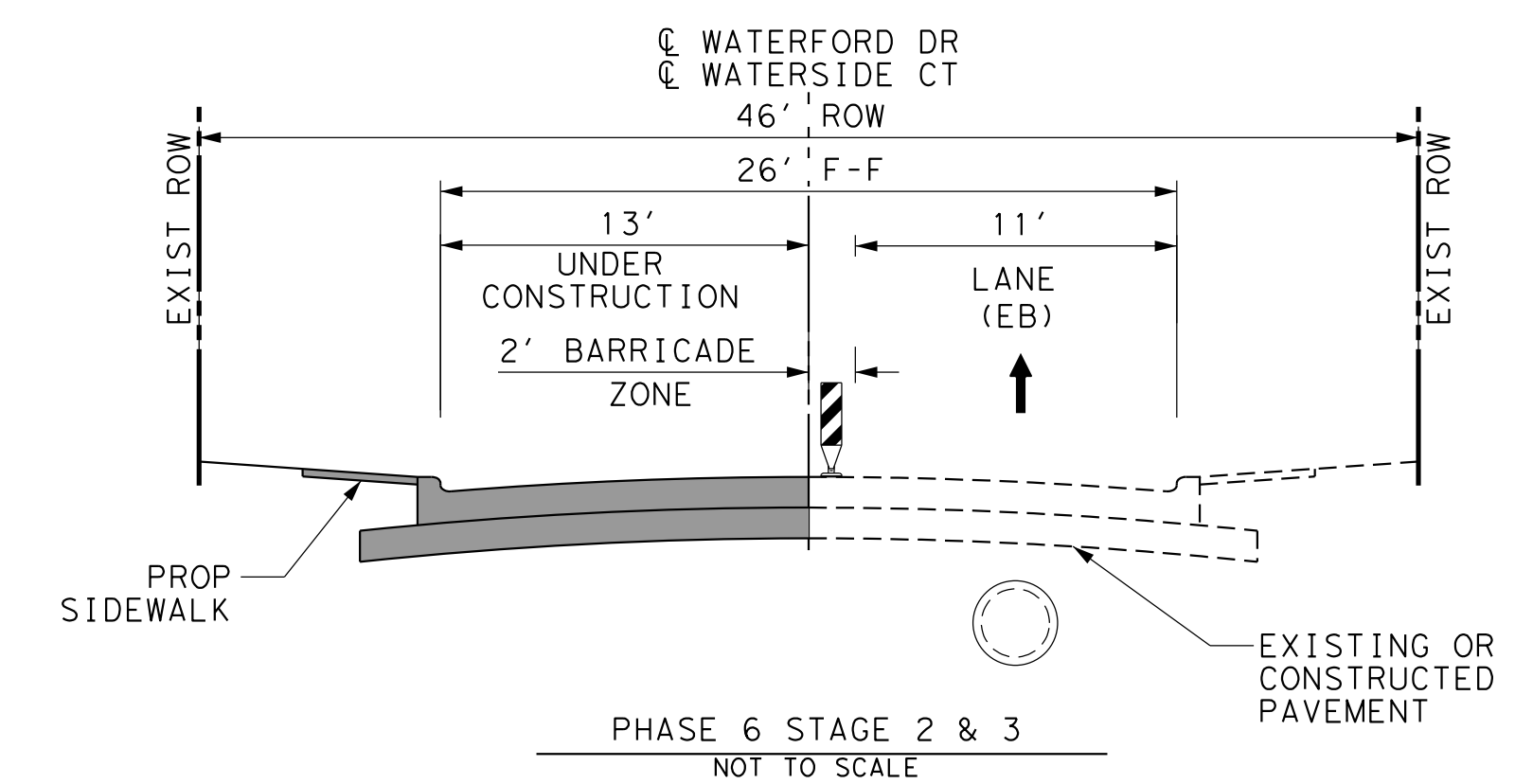
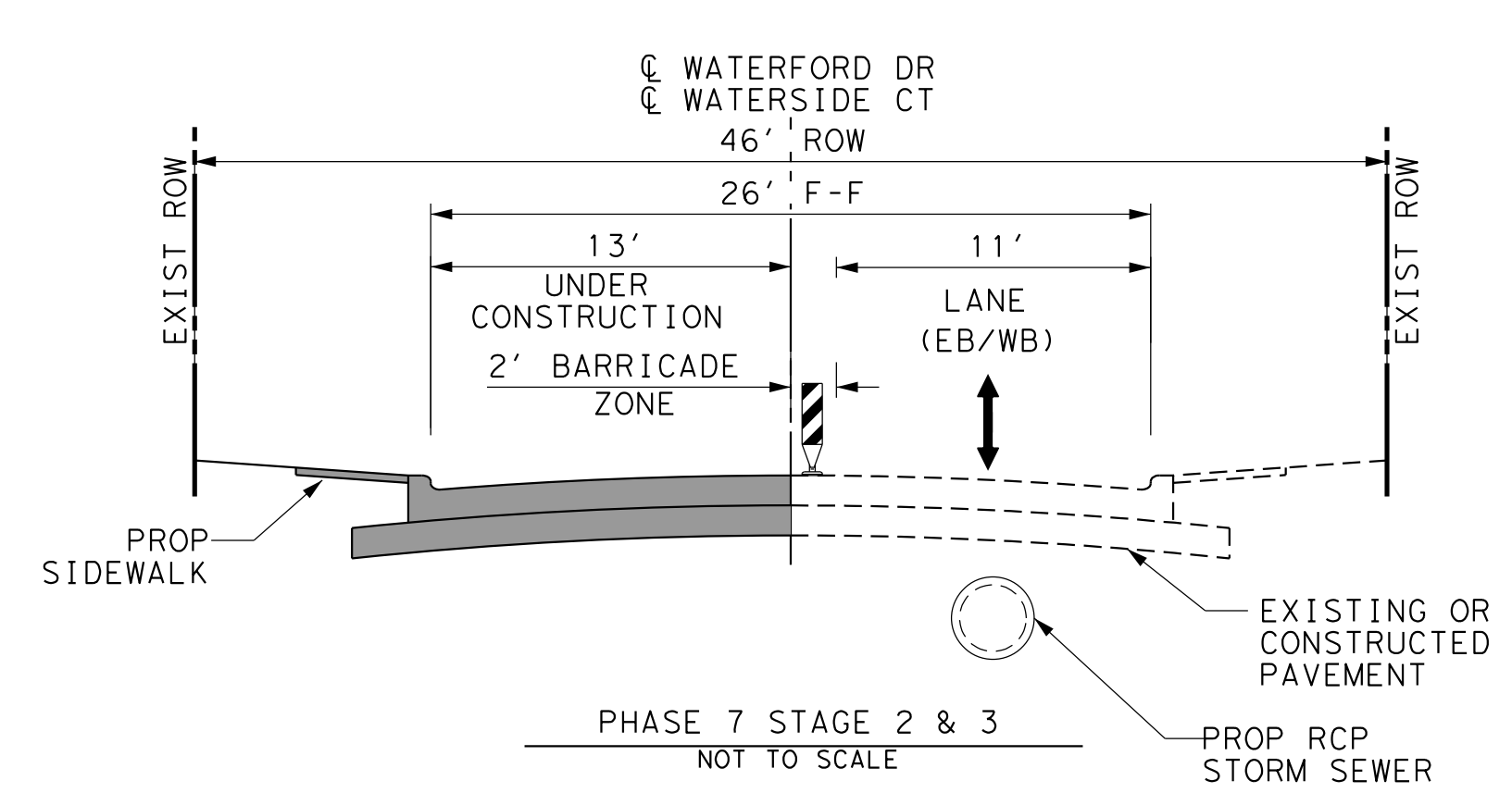
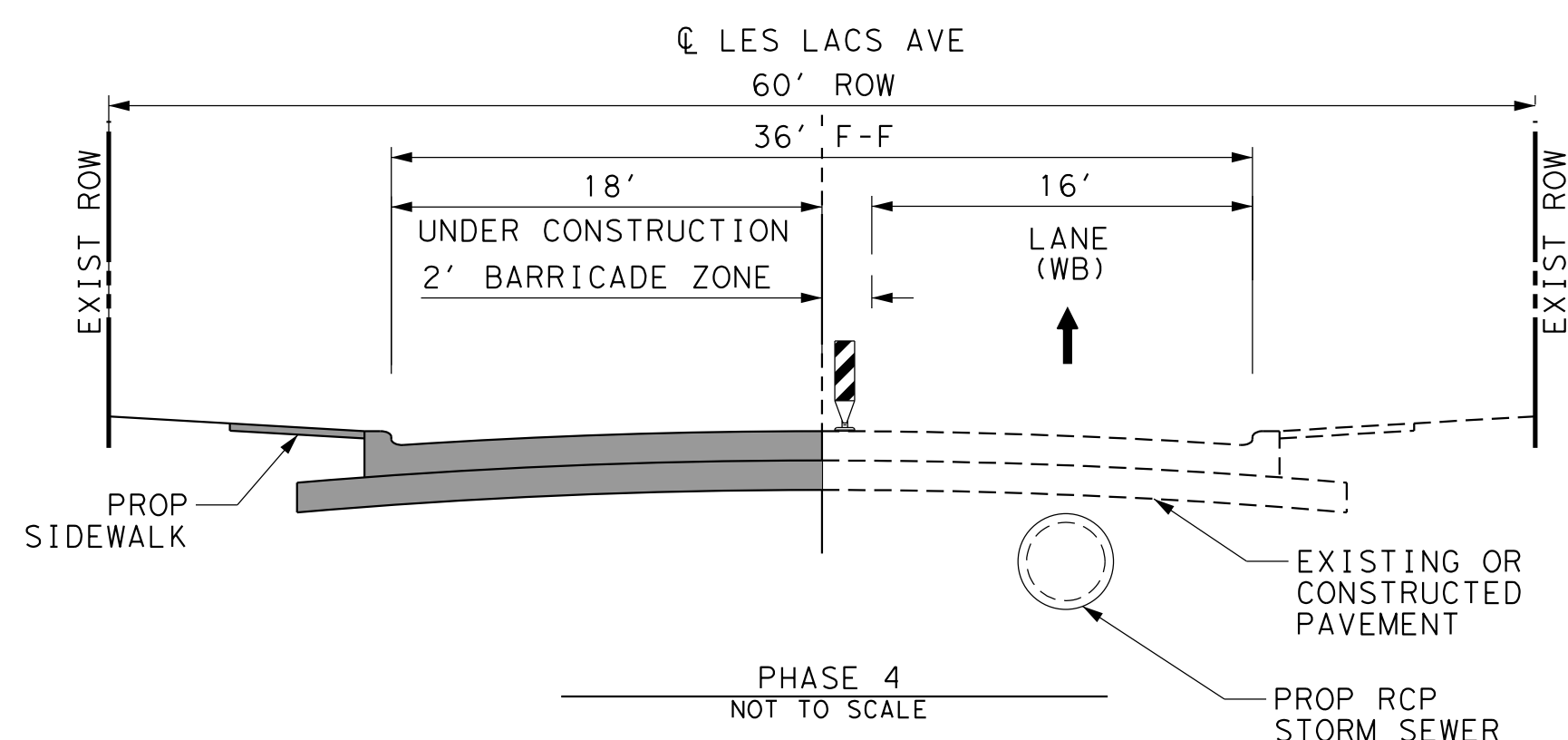
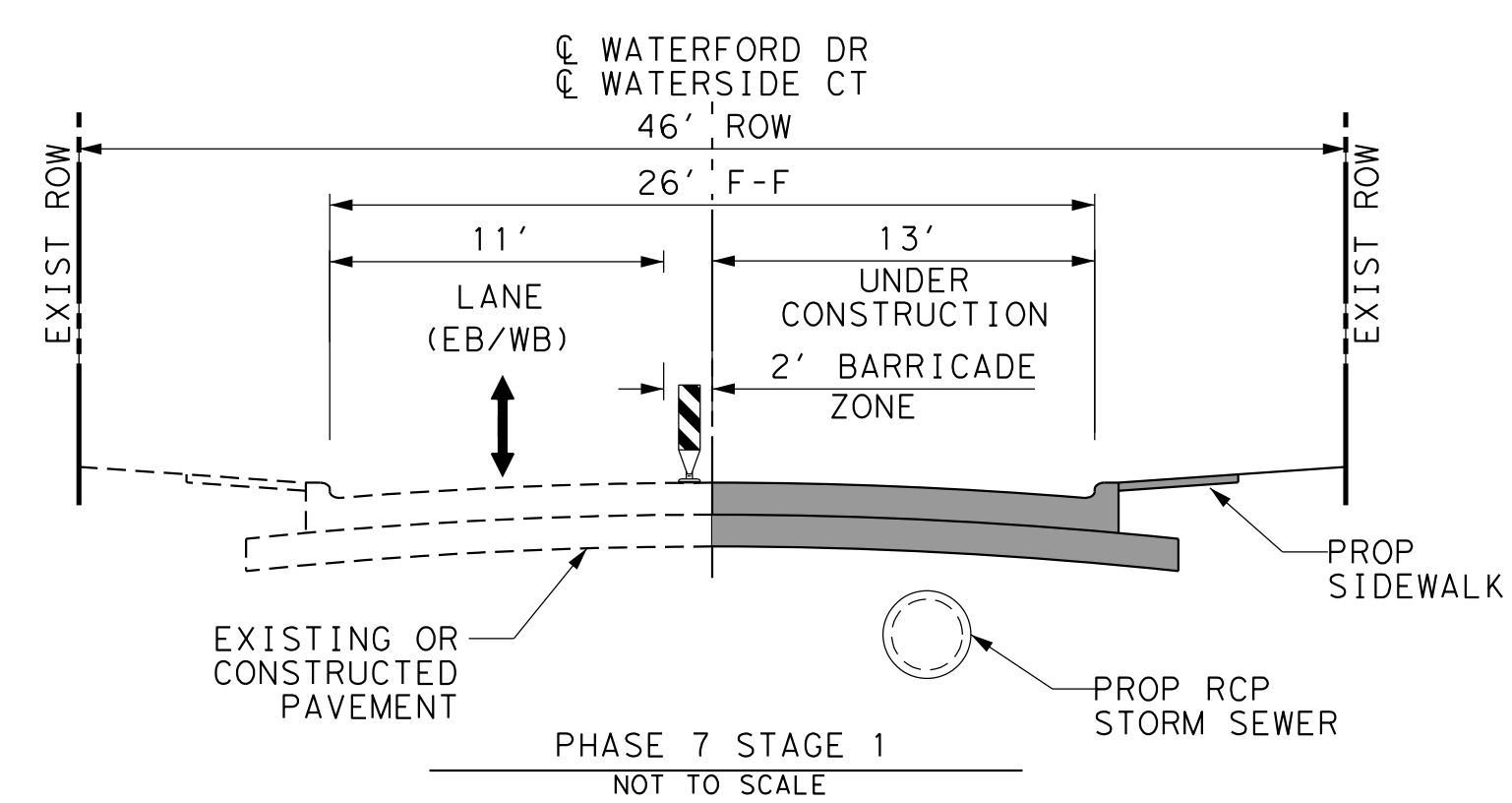
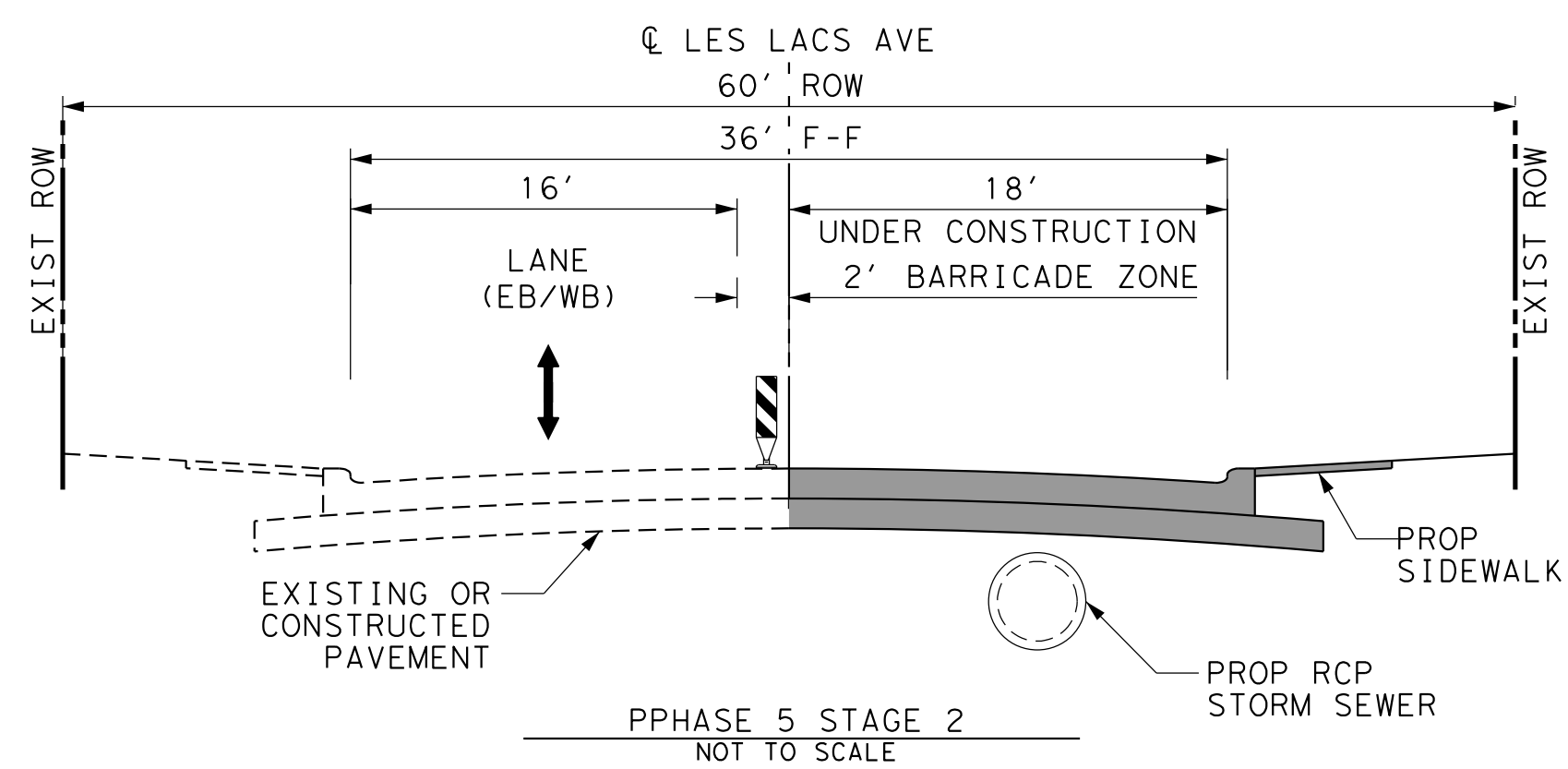
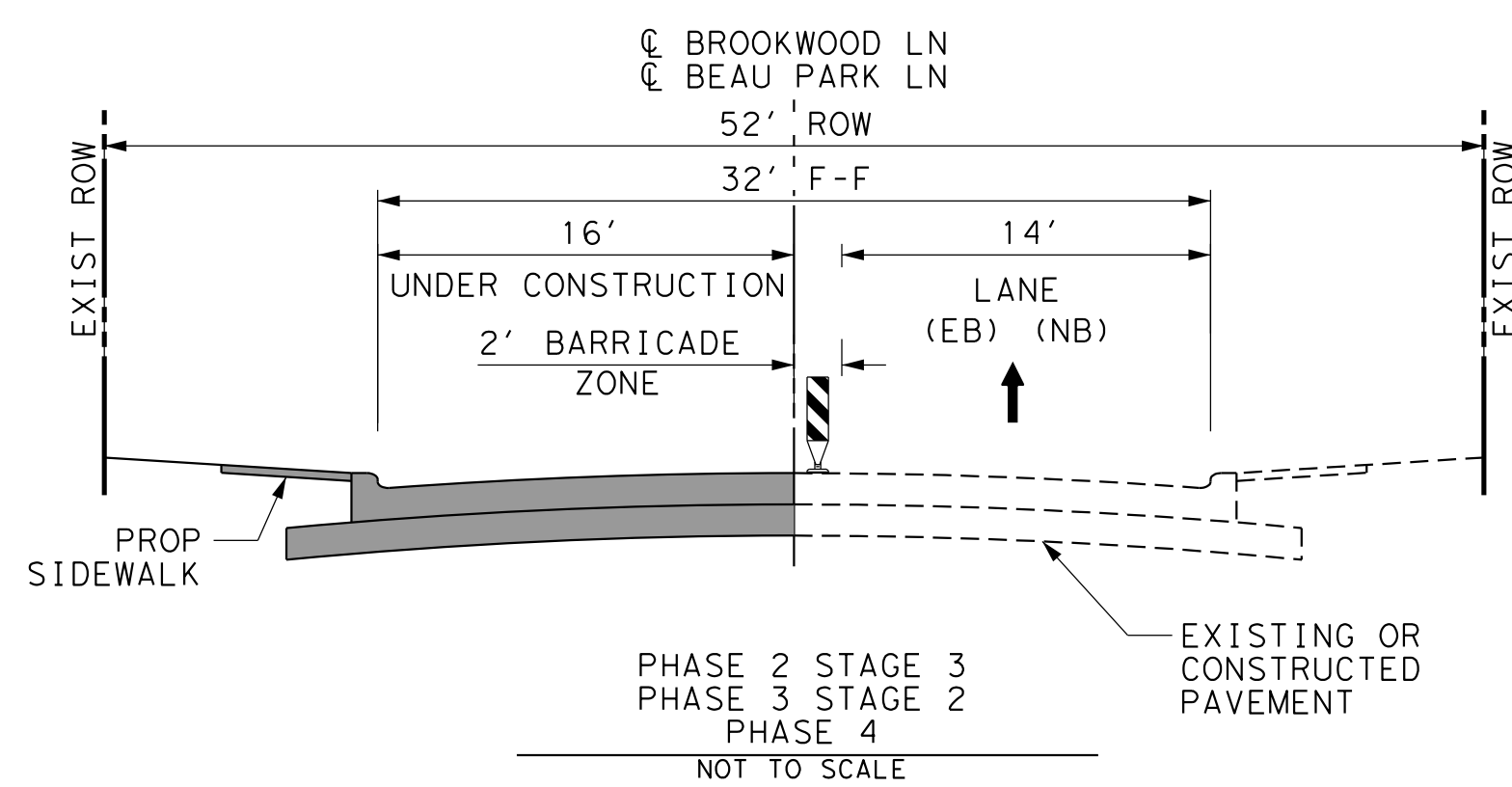
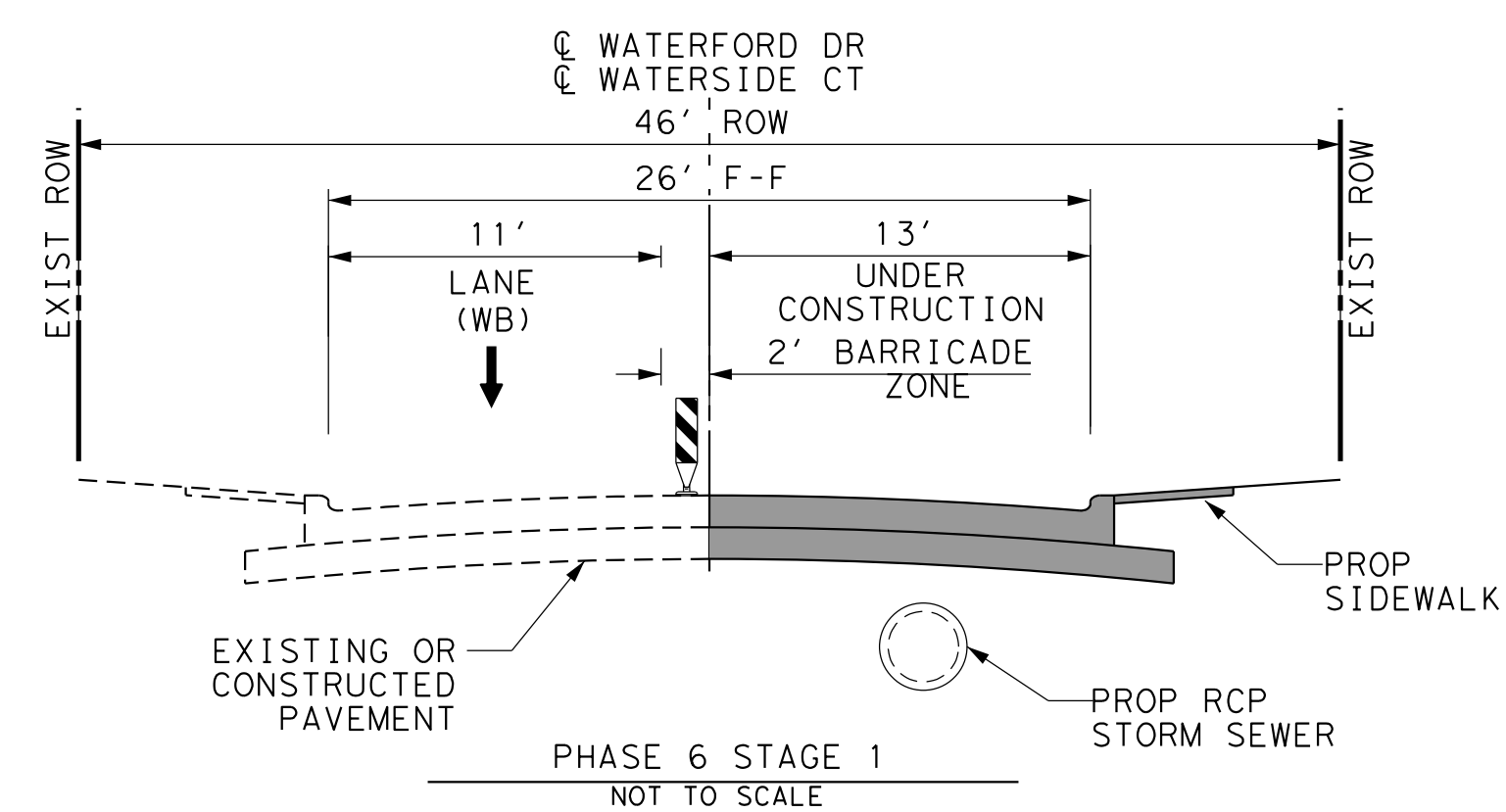
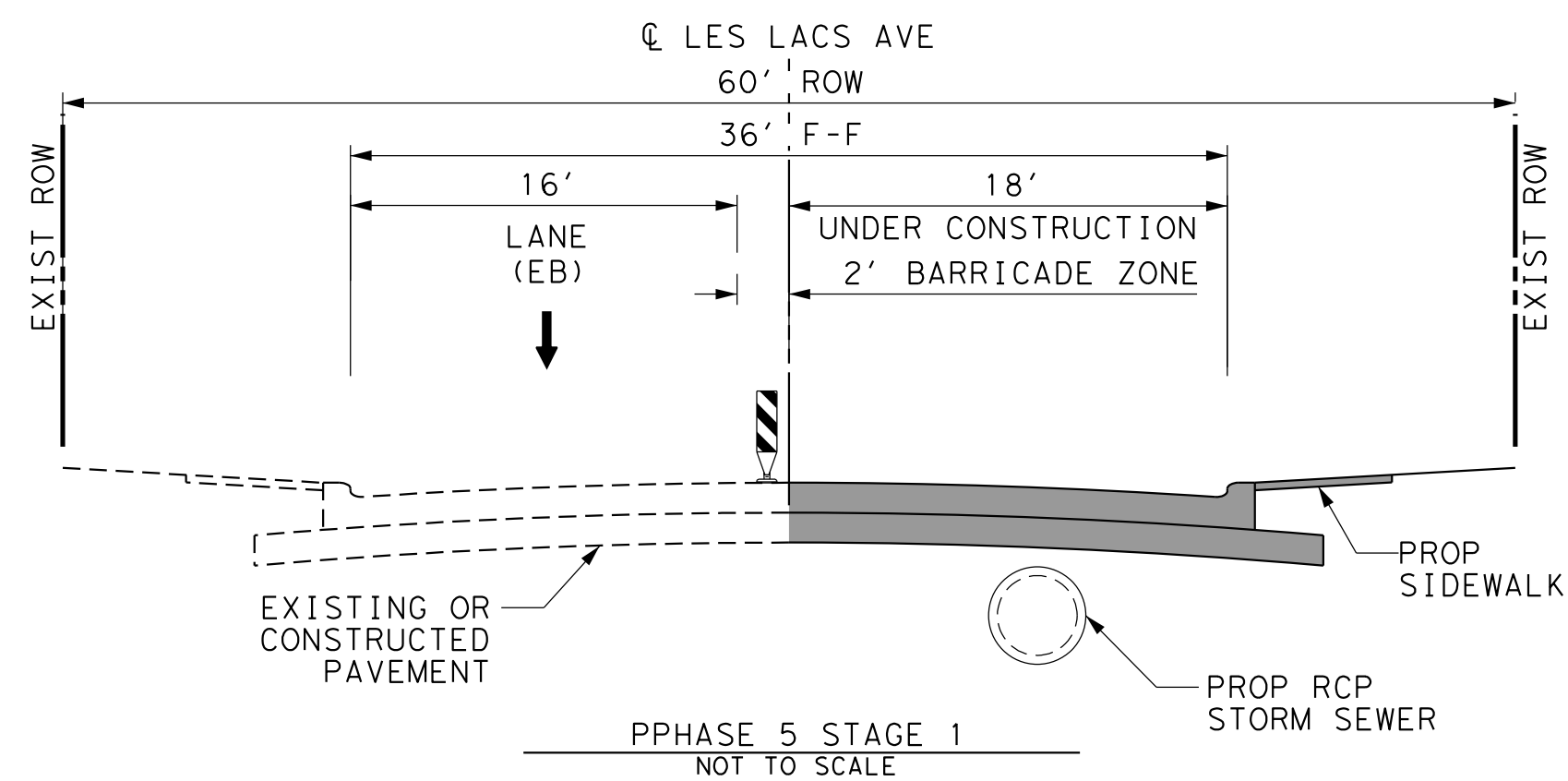
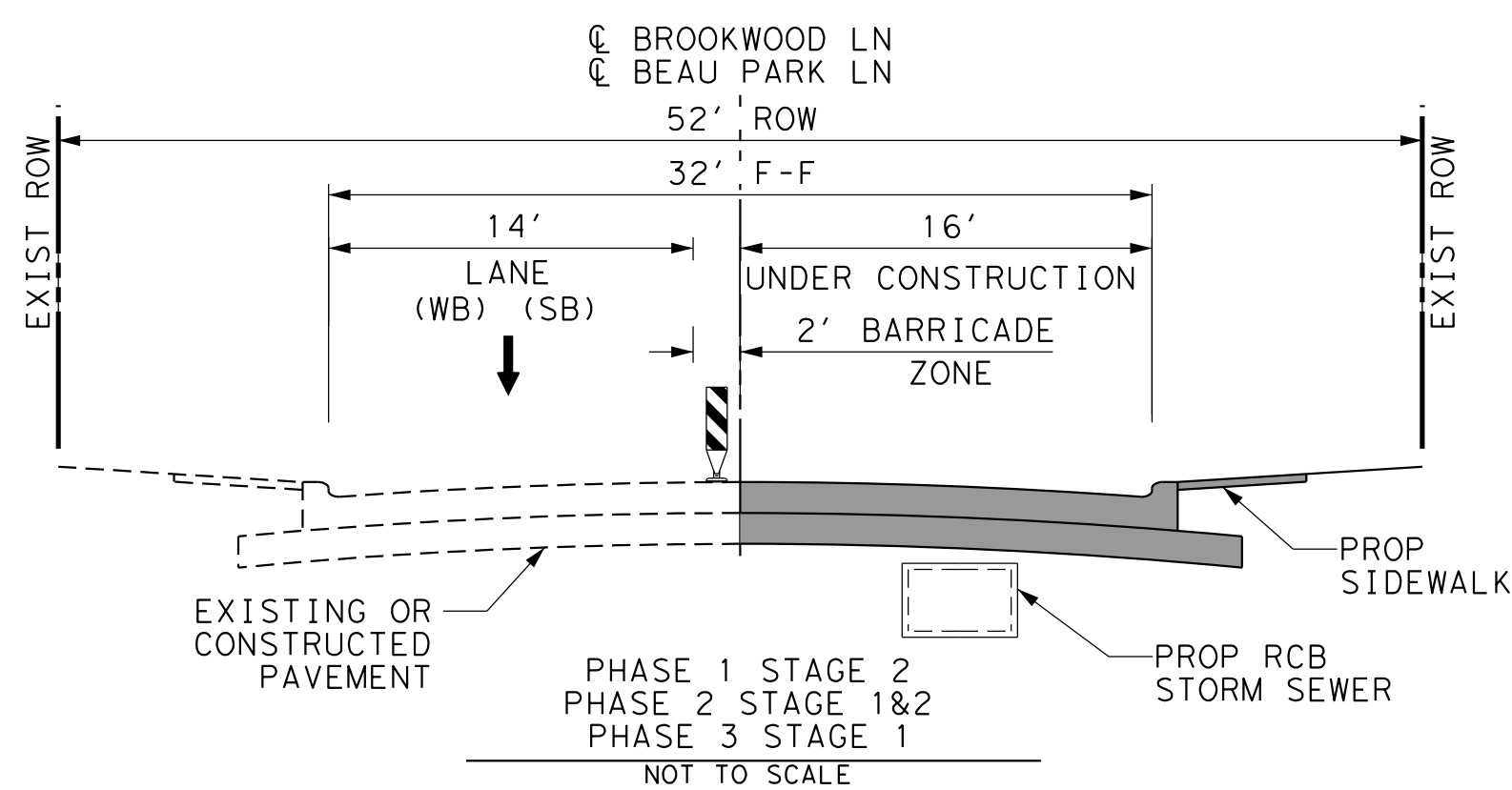
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 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

TRAFFIC CONTROL PLAN
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

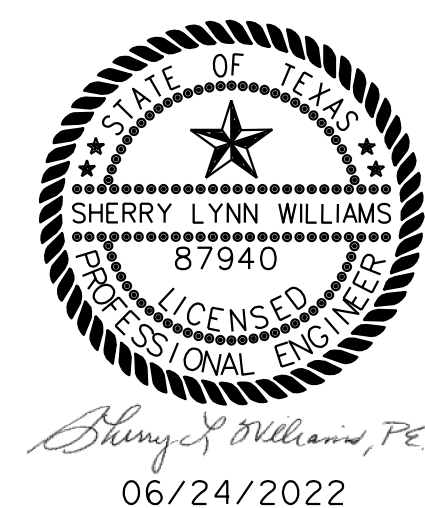
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- NOTES:
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
 2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
 3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
 4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
 5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
 6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.



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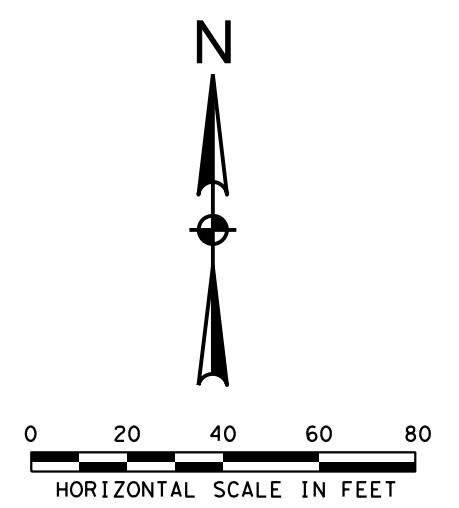
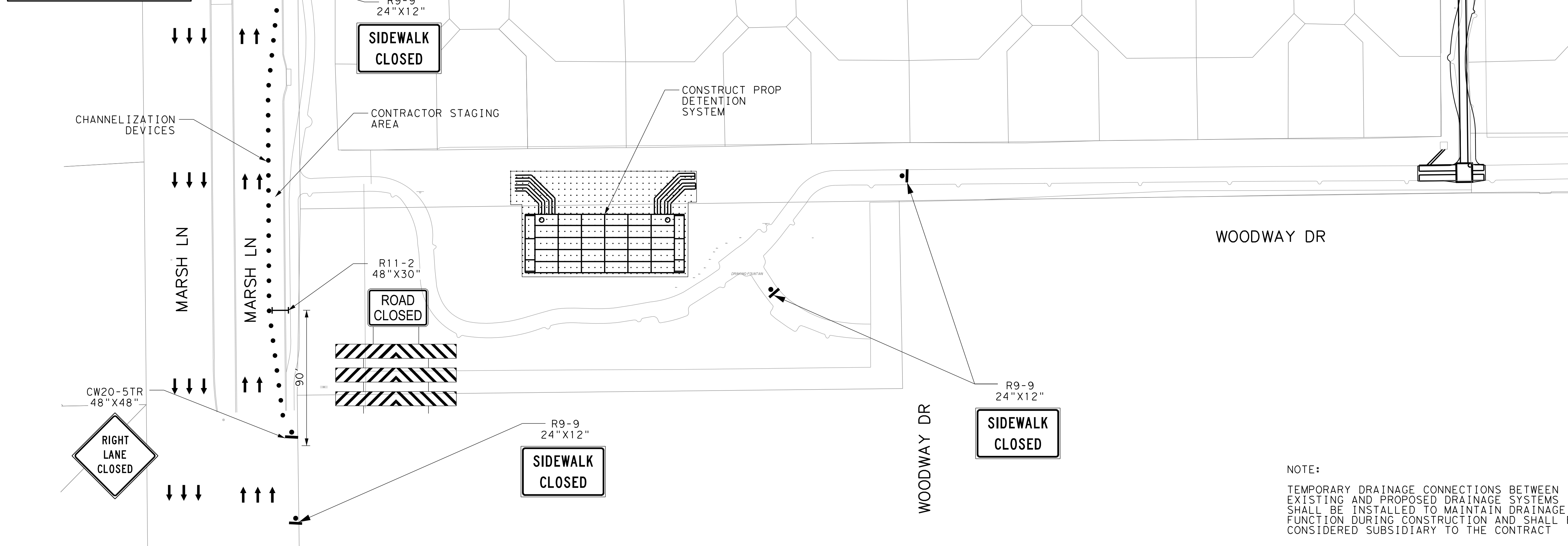
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TRAFFIC CONTROL PLAN
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

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PHASE 1 - STAGE 1



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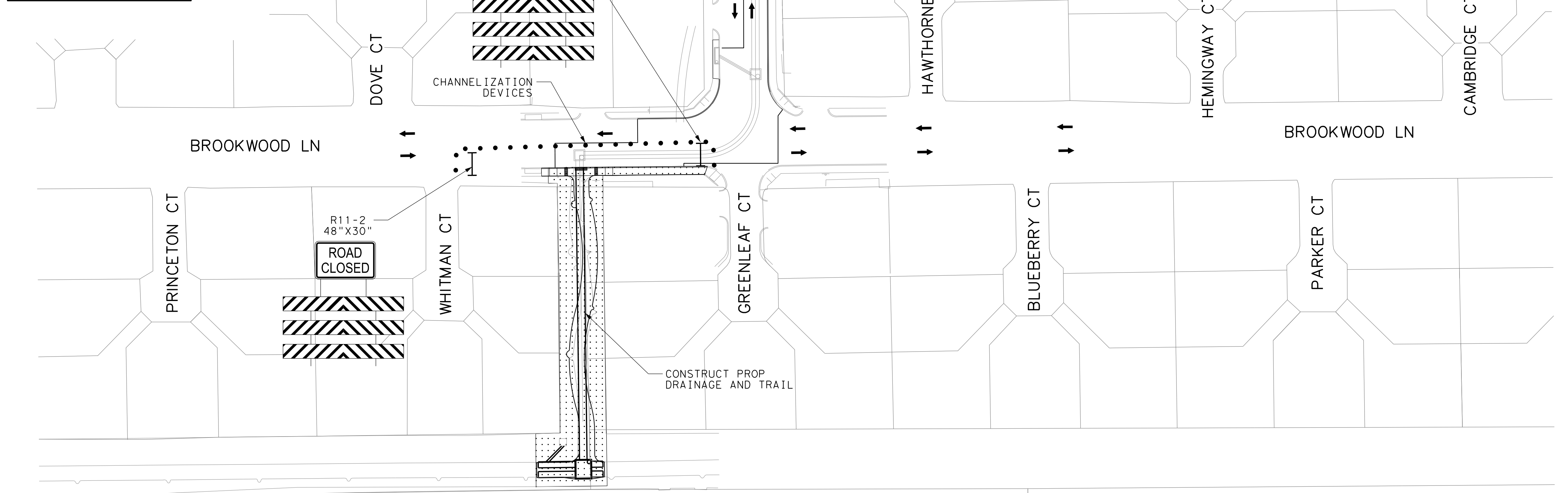
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- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
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5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

NOTE:
TEMPORARY DRAINAGE CONNECTIONS BETWEEN EXISTING AND PROPOSED DRAINAGE SYSTEMS SHALL BE INSTALLED TO MAINTAIN DRAINAGE FUNCTION DURING CONSTRUCTION AND SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT

PHASE 1 - STAGE 2



REV. NO.	DATE	DESCRIPTION	BY
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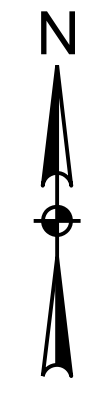
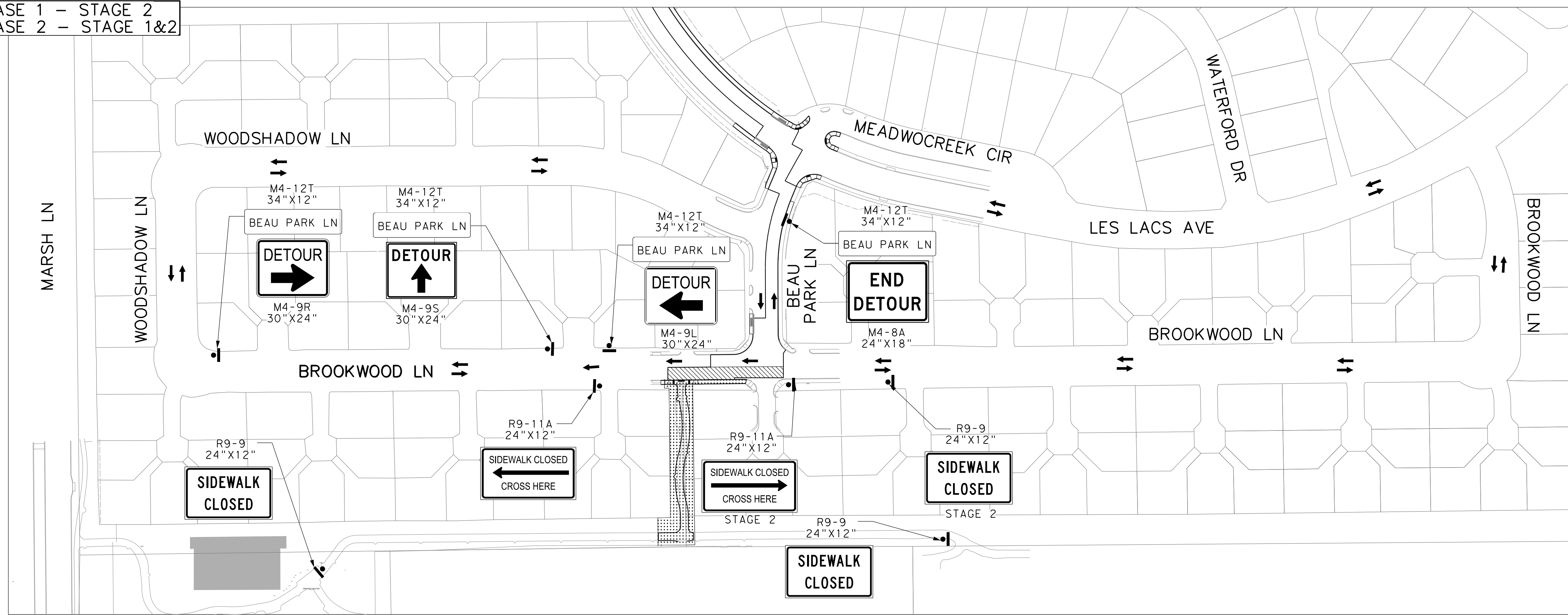
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FIRM NO. F-4373

TRAFFIC CONTROL PLAN
PHASE 1
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

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PHASE 1 - STAGE 2
 PHASE 2 - STAGE 1&2



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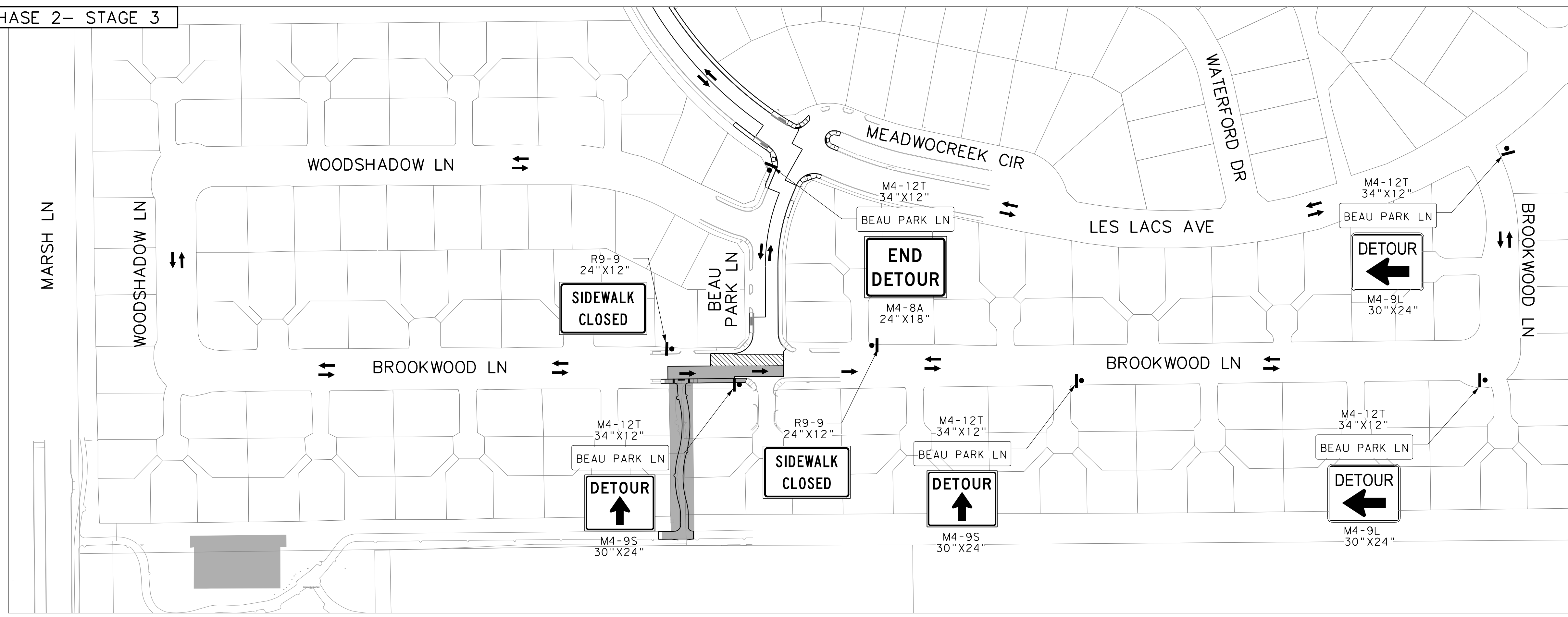
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- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT PHASE 1
- PROP PAVEMENT PHASE 2
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 2- STAGE 3



06/24/2022

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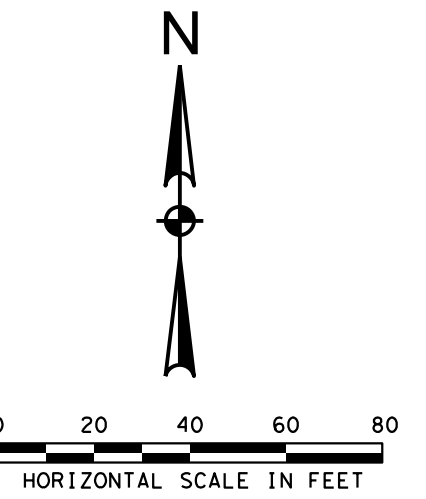
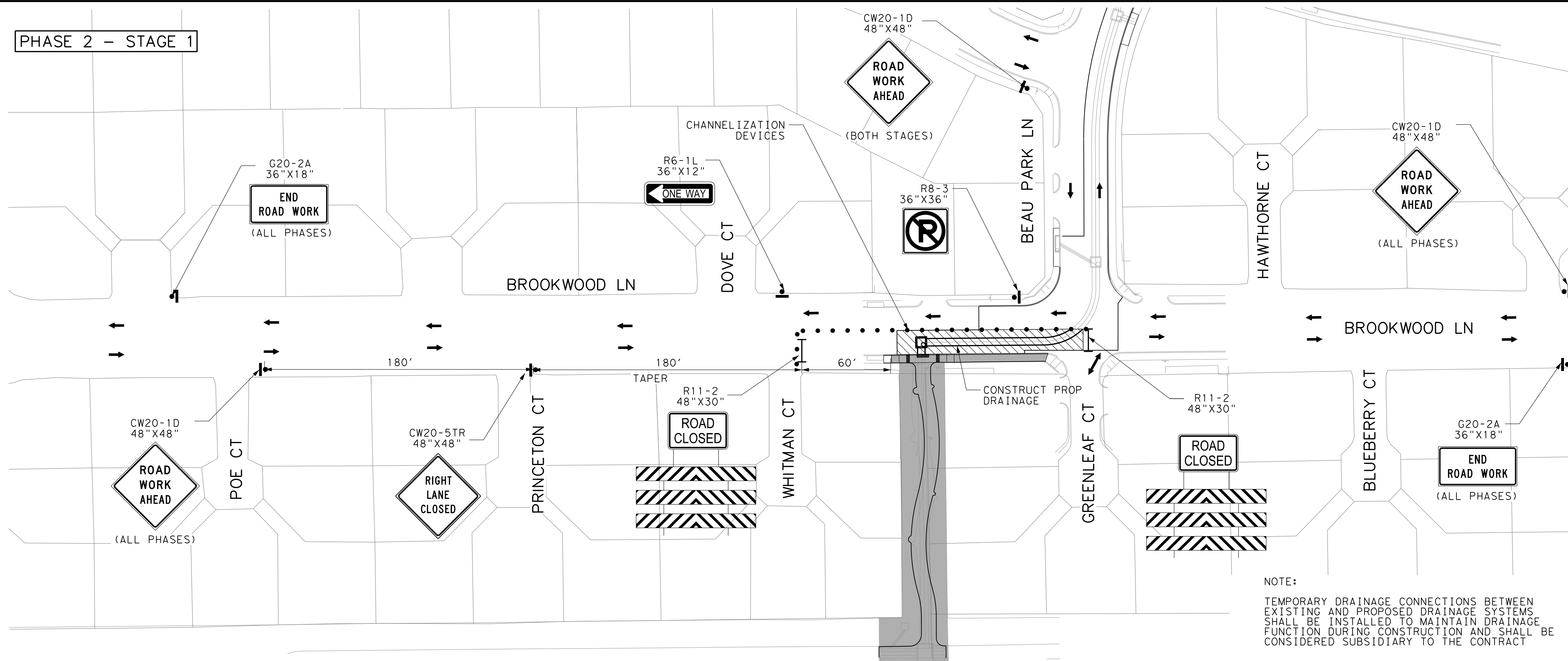
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

TRAFFIC CONTROL PLAN
 PHASE 1 & 2 DETOUR MAP
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS

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PHASE 2 - STAGE 1



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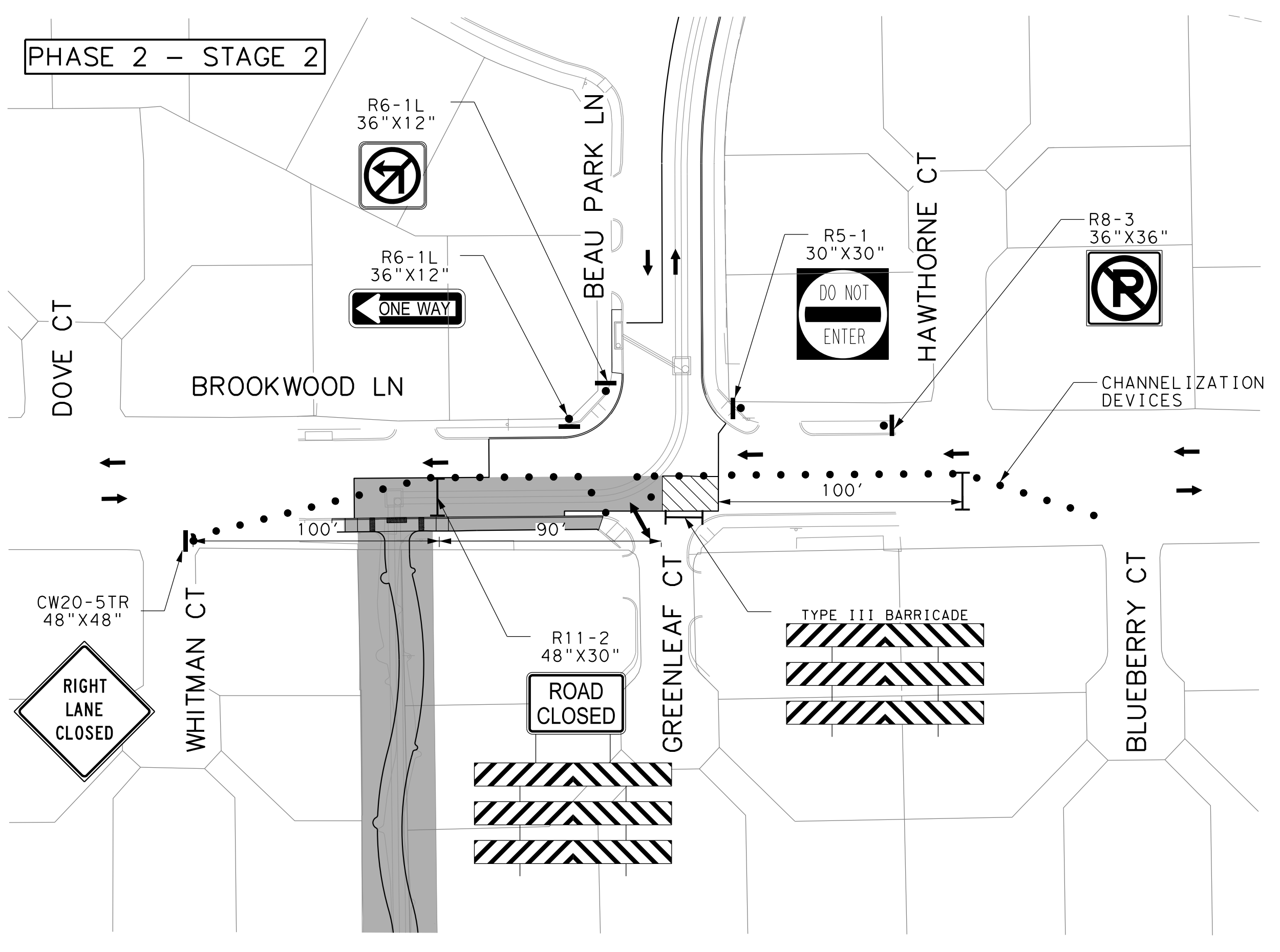
- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

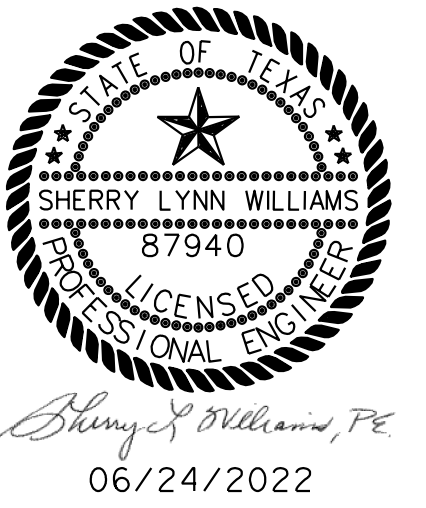
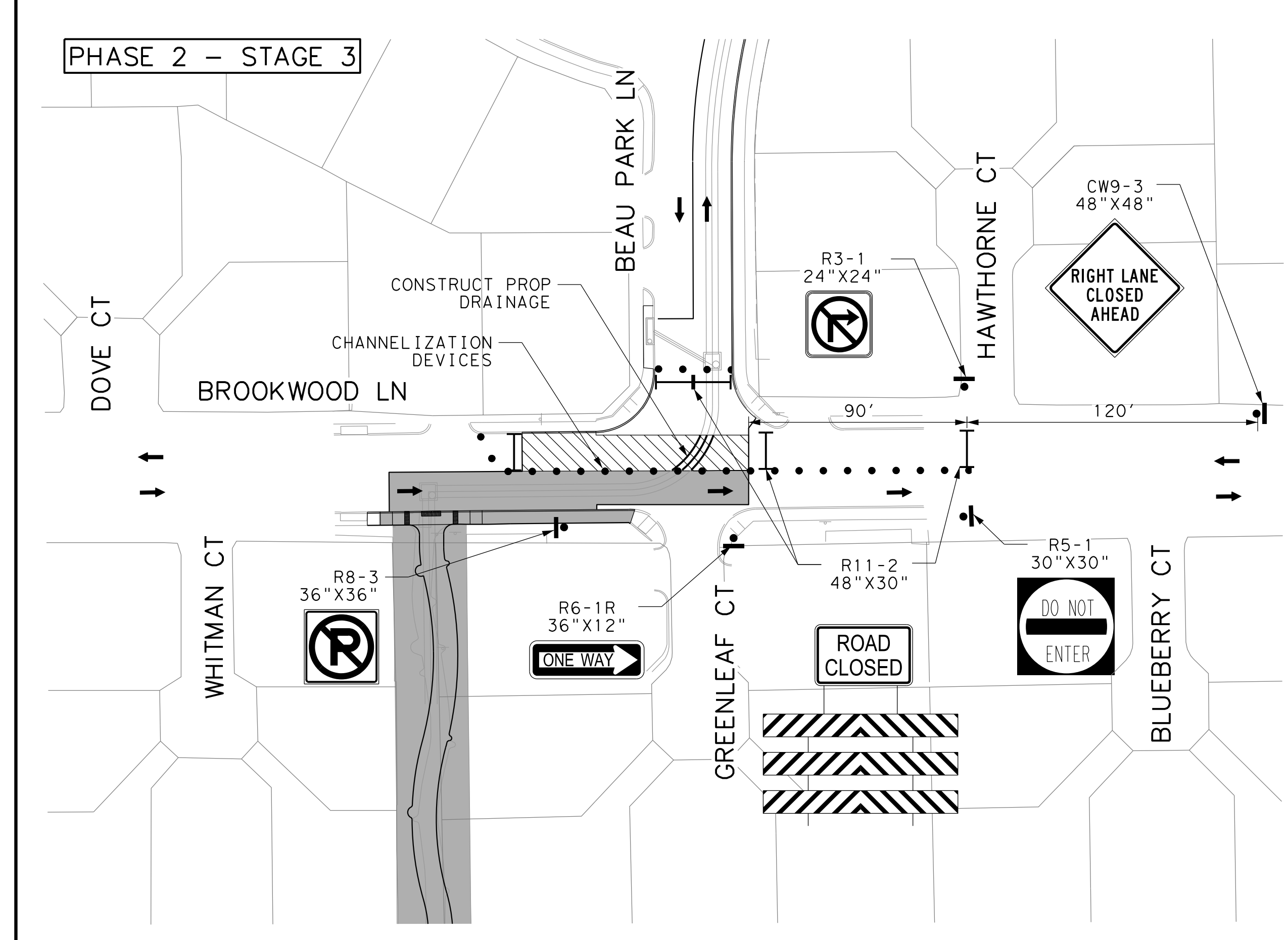
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
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NOTE:
TEMPORARY DRAINAGE CONNECTIONS BETWEEN EXISTING AND PROPOSED DRAINAGE SYSTEMS SHALL BE INSTALLED TO MAINTAIN DRAINAGE FUNCTION DURING CONSTRUCTION AND SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT

PHASE 2 - STAGE 2



PHASE 2 - STAGE 3



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2			



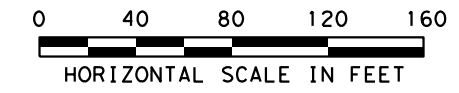
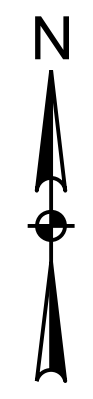
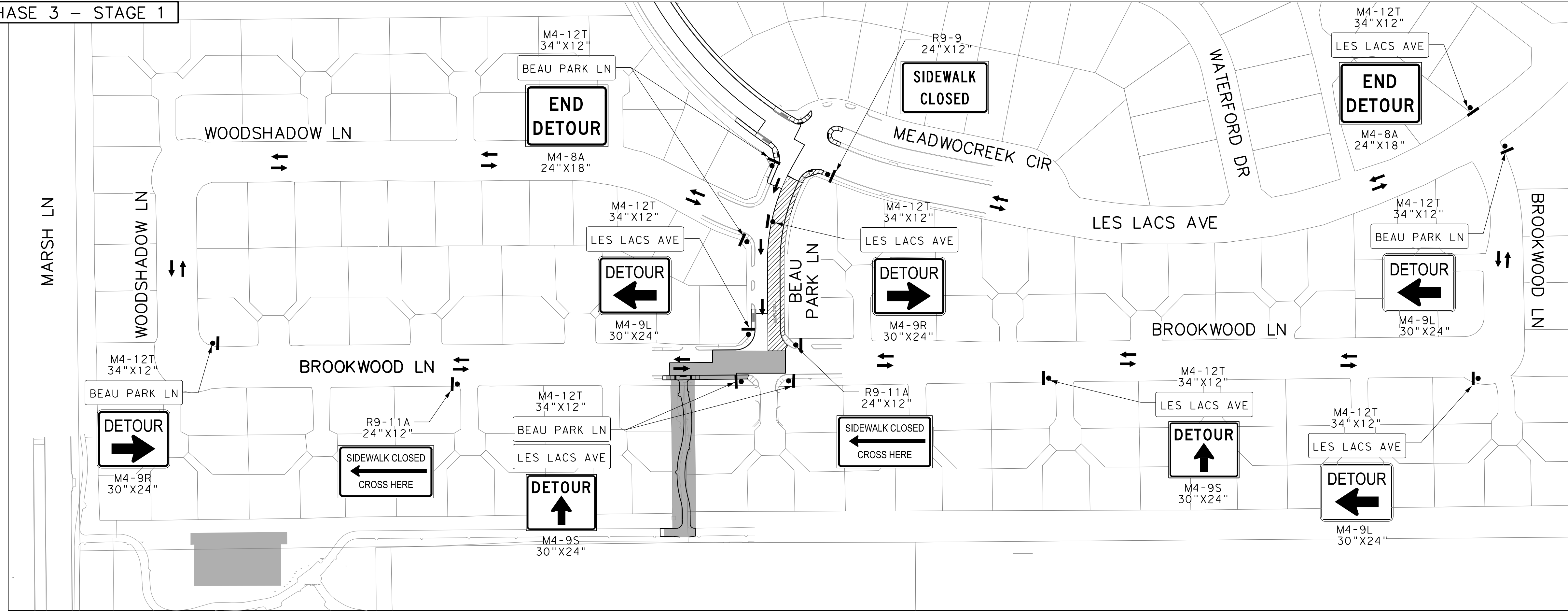
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

TRAFFIC CONTROL PLAN
PHASE 2
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		18

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PHASE 3 - STAGE 1



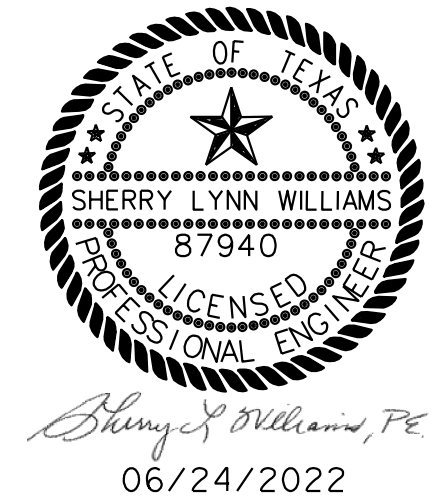
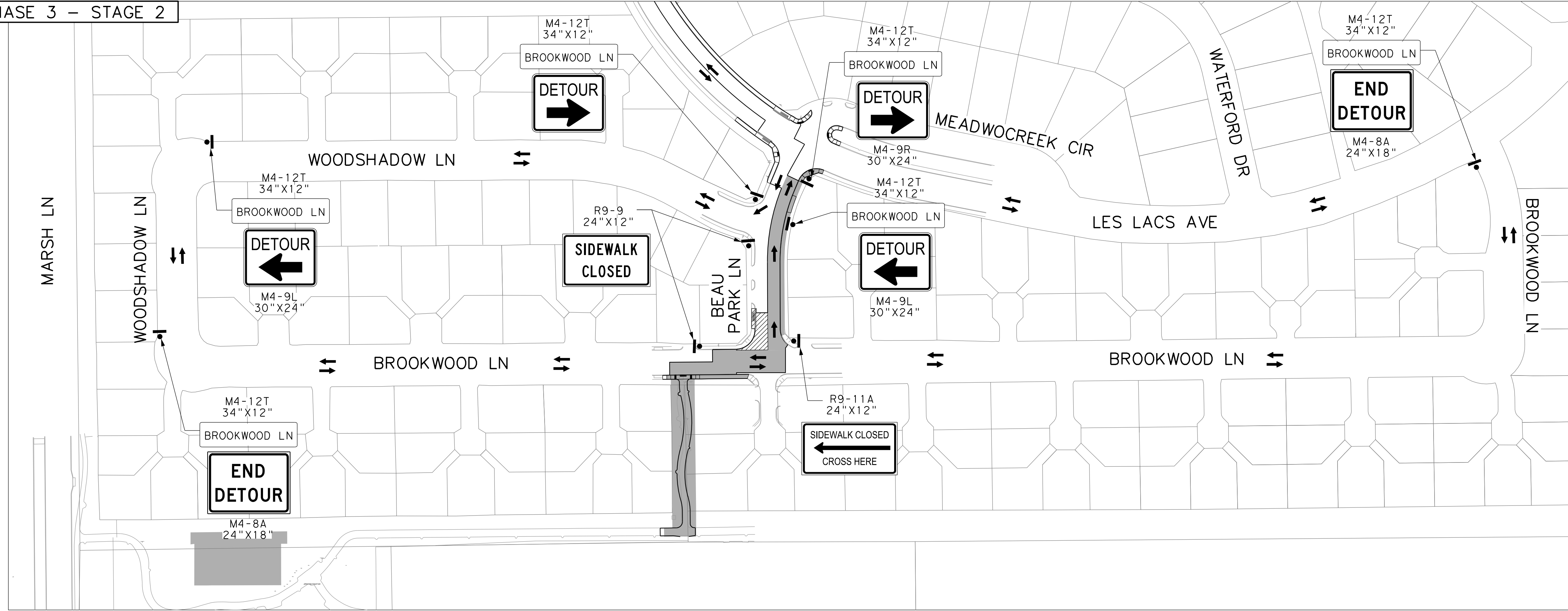
TCP LEGEND

- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 3 - STAGE 2



REV. NO.	DATE	DESCRIPTION	BY
1			
2			



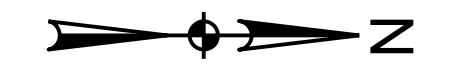
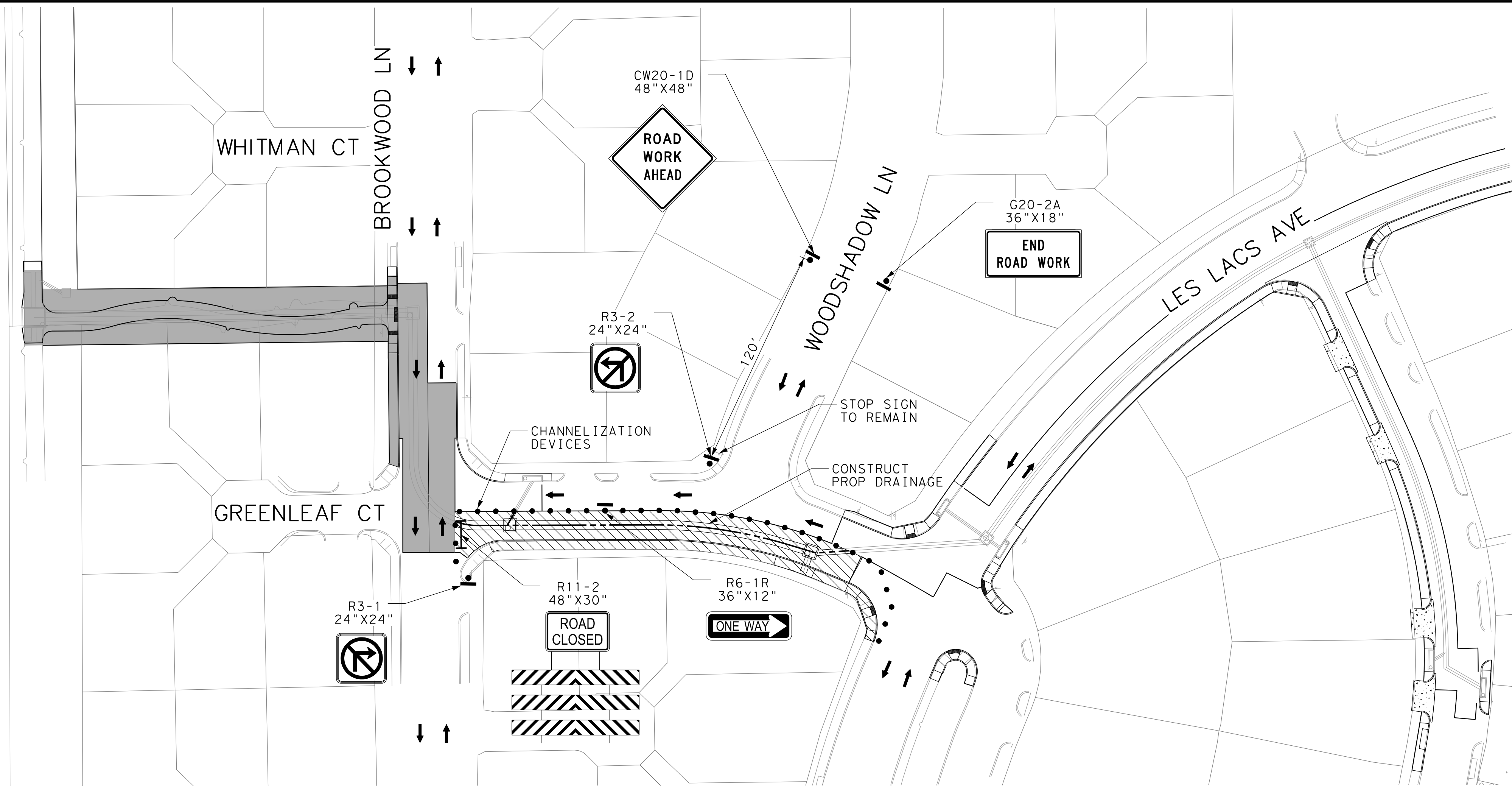
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

TRAFFIC CONTROL PLAN
PHASE 3 DETOUR MAP
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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PHASE 3 - STAGE 1



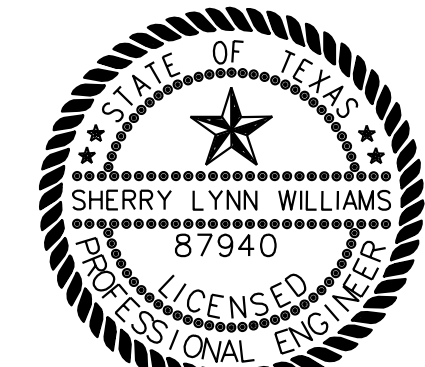
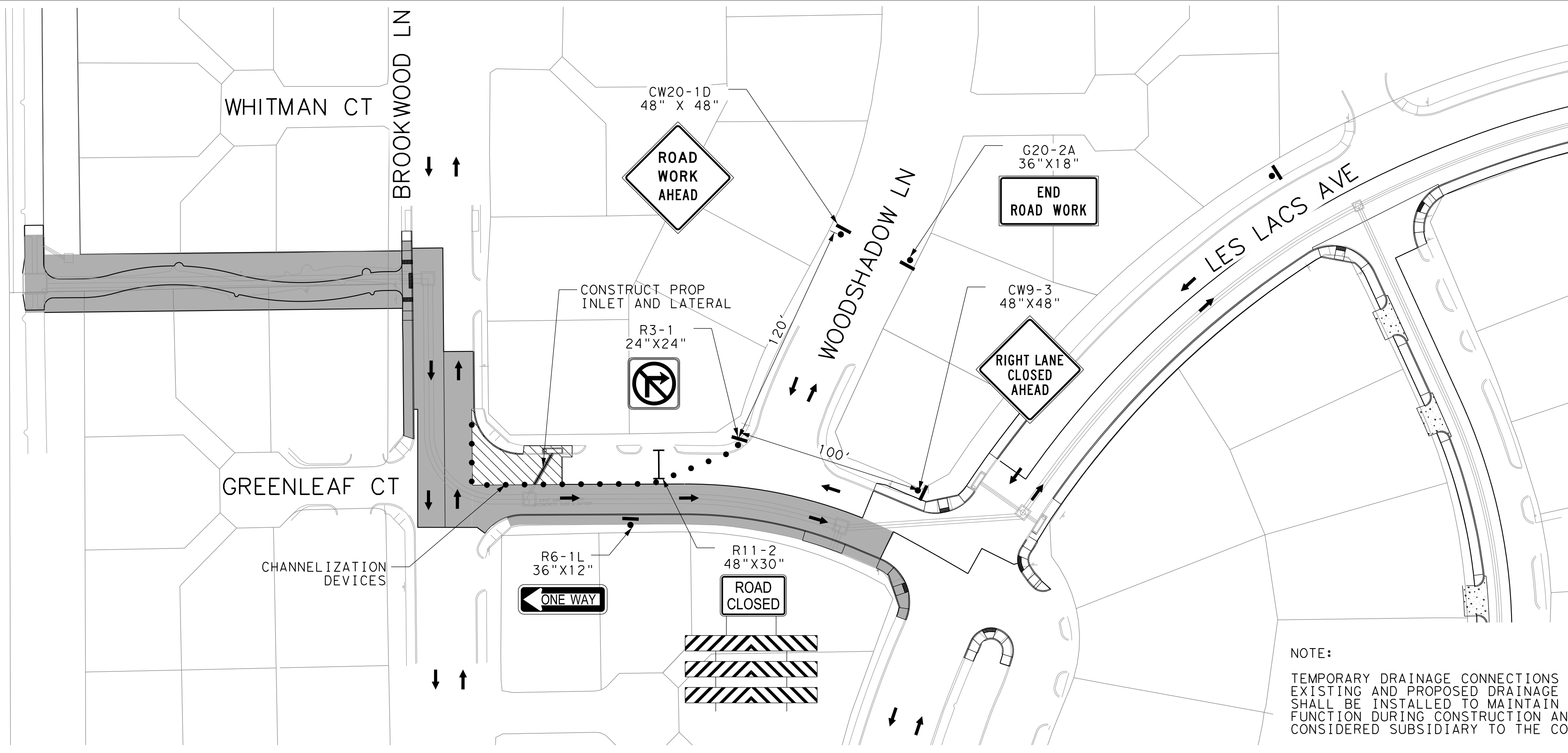
TCP LEGEND

- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 3 - STAGE 2



Sherry Lynn Williams, P.E.
06/24/2022

REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

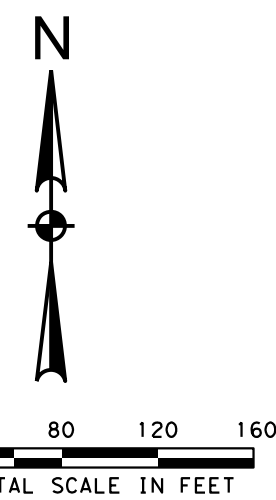
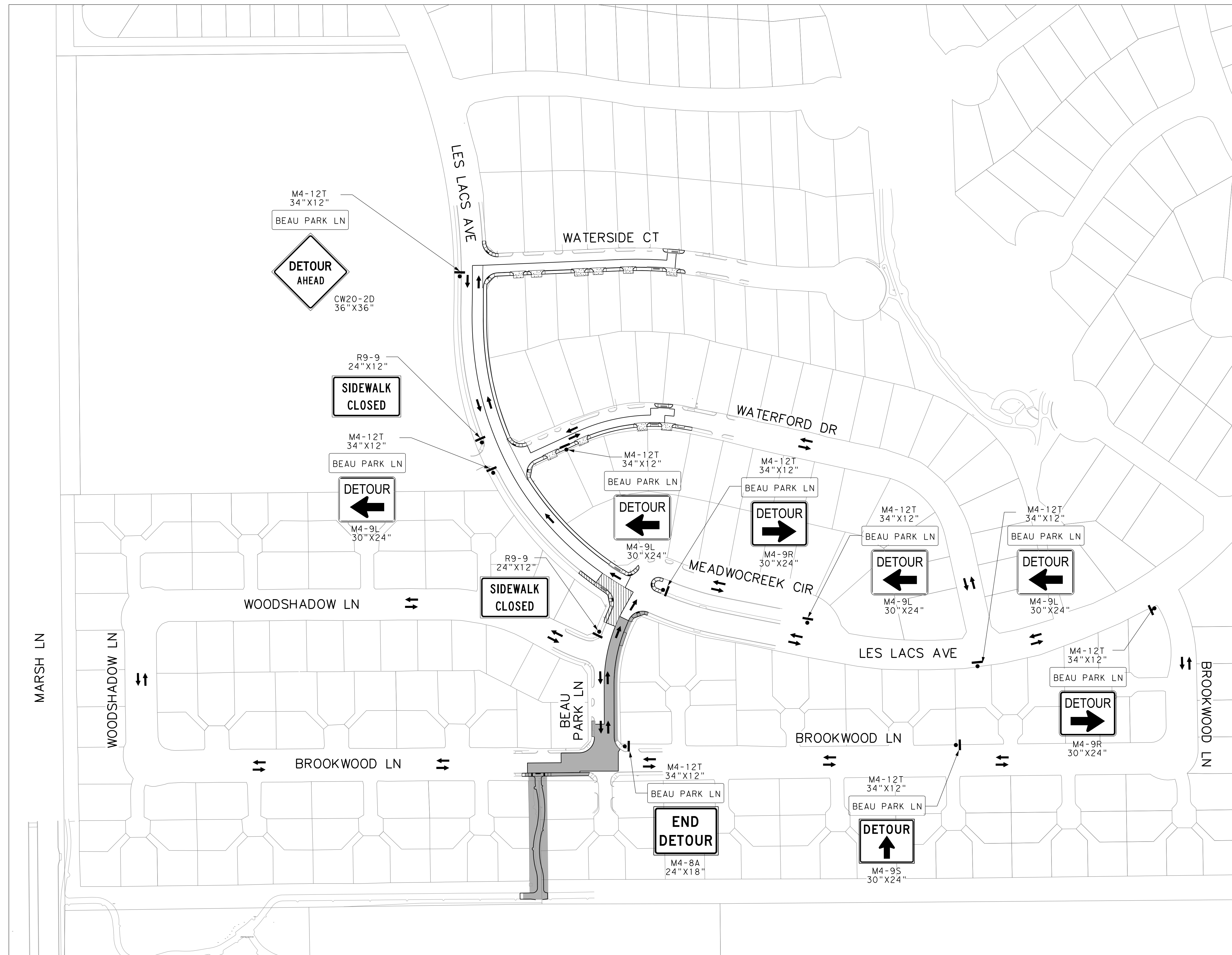
TRAFFIC CONTROL PLAN
PHASE 3
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		20

NOTE:
TEMPORARY DRAINAGE CONNECTIONS BETWEEN EXISTING AND PROPOSED DRAINAGE SYSTEMS SHALL BE INSTALLED TO MAINTAIN DRAINAGE FUNCTION DURING CONSTRUCTION AND SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT

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PHASE 4



TCP LEGEND

- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.



REV NO.	DATE	DESCRIPTION	BY
1			
2			

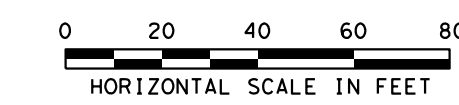
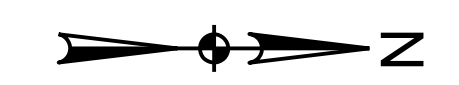


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

**TRAFFIC CONTROL PLAN
 PHASE 4 DETOUR MAP**
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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TCP LEGEND

- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
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4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.



REV. NO.	DATE	DESCRIPTION	BY
1			
2			

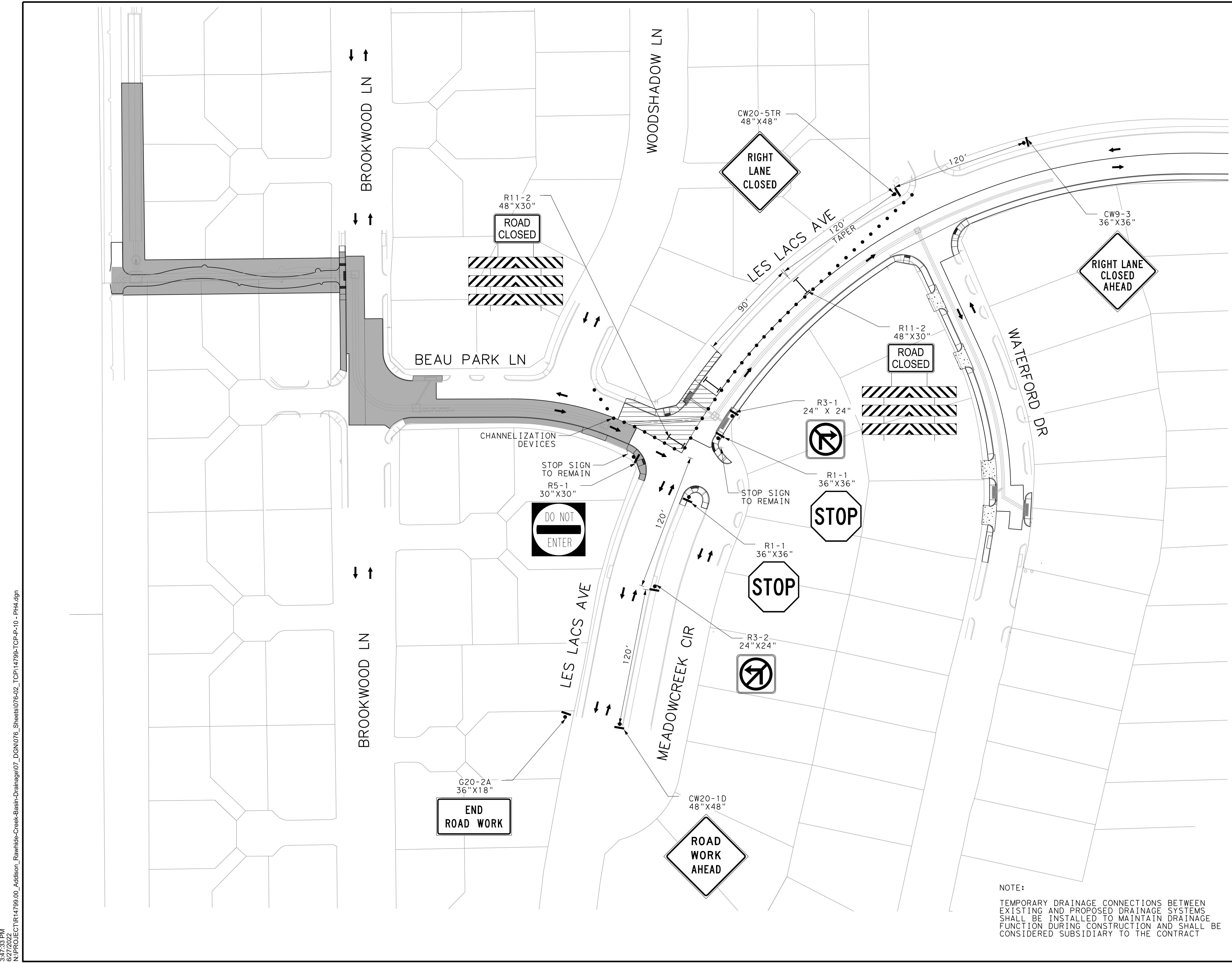


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

**TRAFFIC CONTROL PLAN
PHASE 4
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

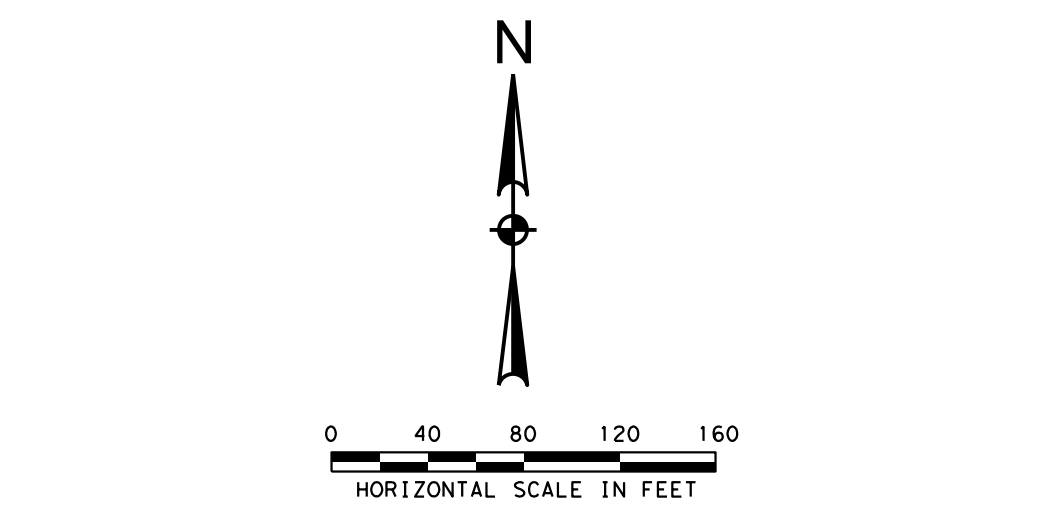
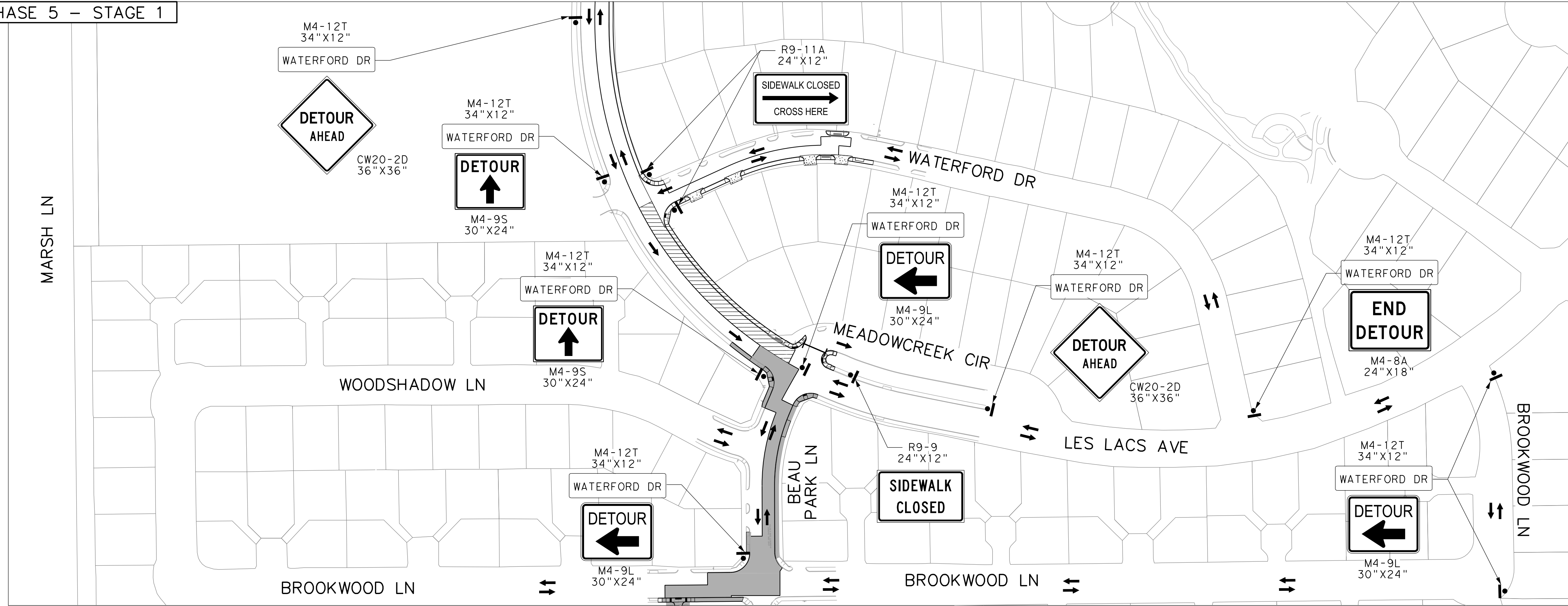
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NOTE:
TEMPORARY DRAINAGE CONNECTIONS BETWEEN EXISTING AND PROPOSED DRAINAGE SYSTEMS SHALL BE INSTALLED TO MAINTAIN DRAINAGE FUNCTION DURING CONSTRUCTION AND SHALL BE CONSIDERED SUBSIDIARY TO THE CONTRACT



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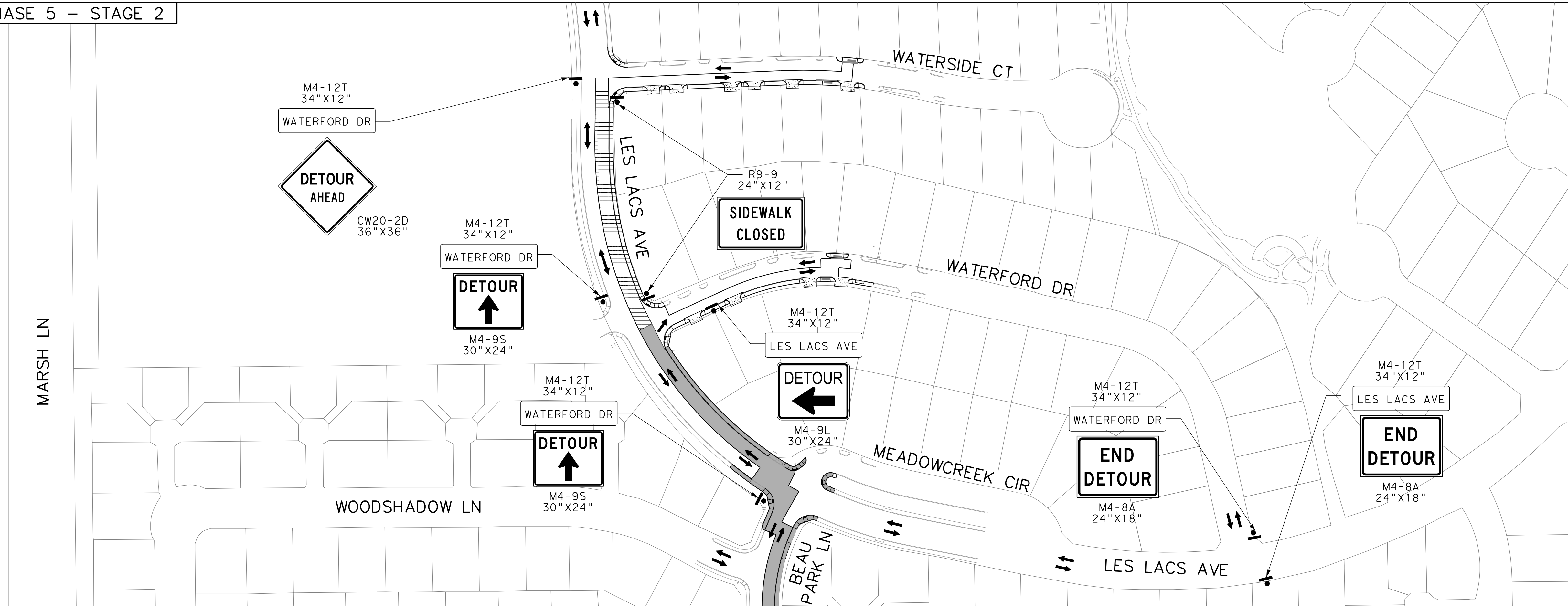
PHASE 5 - STAGE 1



- TCP LEGEND**
- PREVIOUSLY CONSTRUCTED PAVEMENT
 - PROP PAVEMENT THIS PHASE
 - TCP SIGN
 - CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
 - TYPE III BARRICADE
 - TRAFFIC FLOW

- NOTES:**
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
 2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
 3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
 4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
 5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
 6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 5 - STAGE 2



REV NO.	DATE	DESCRIPTION	BY
1			
2			



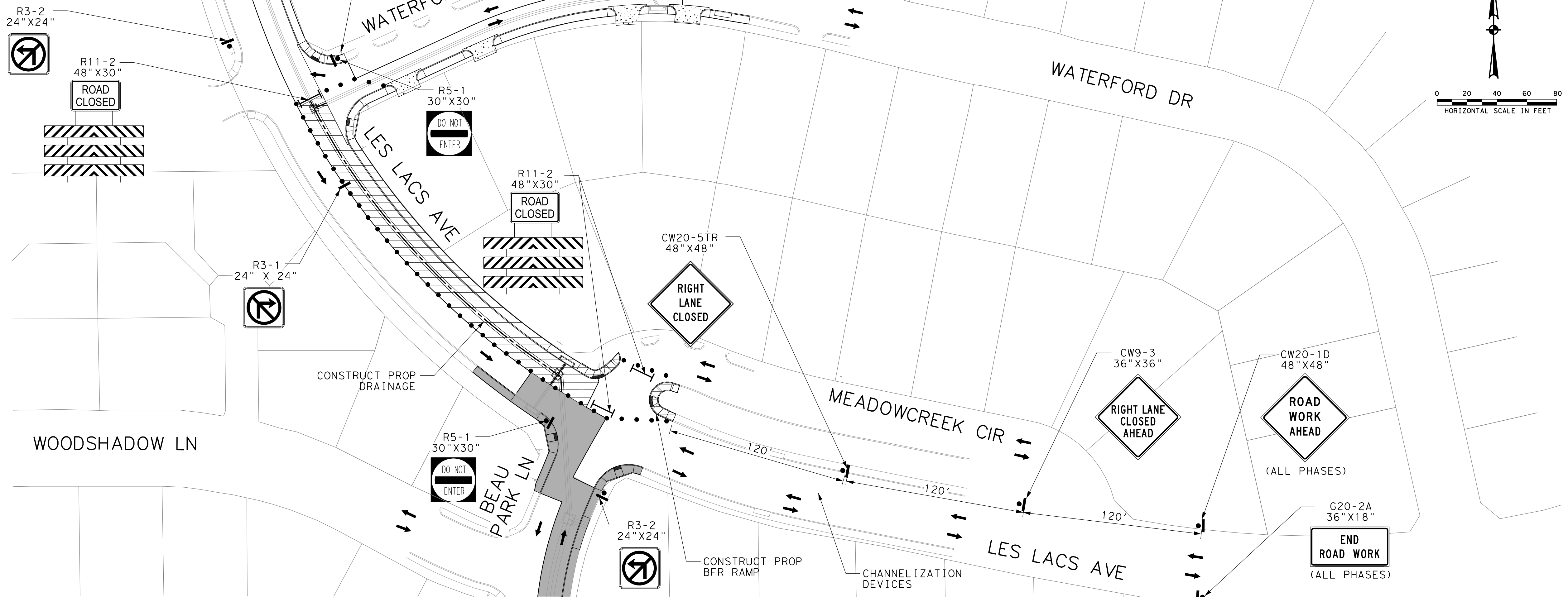
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192 FIRM NO. F-4373

**TRAFFIC CONTROL PLAN
 PHASE 5 DETOUR MAP
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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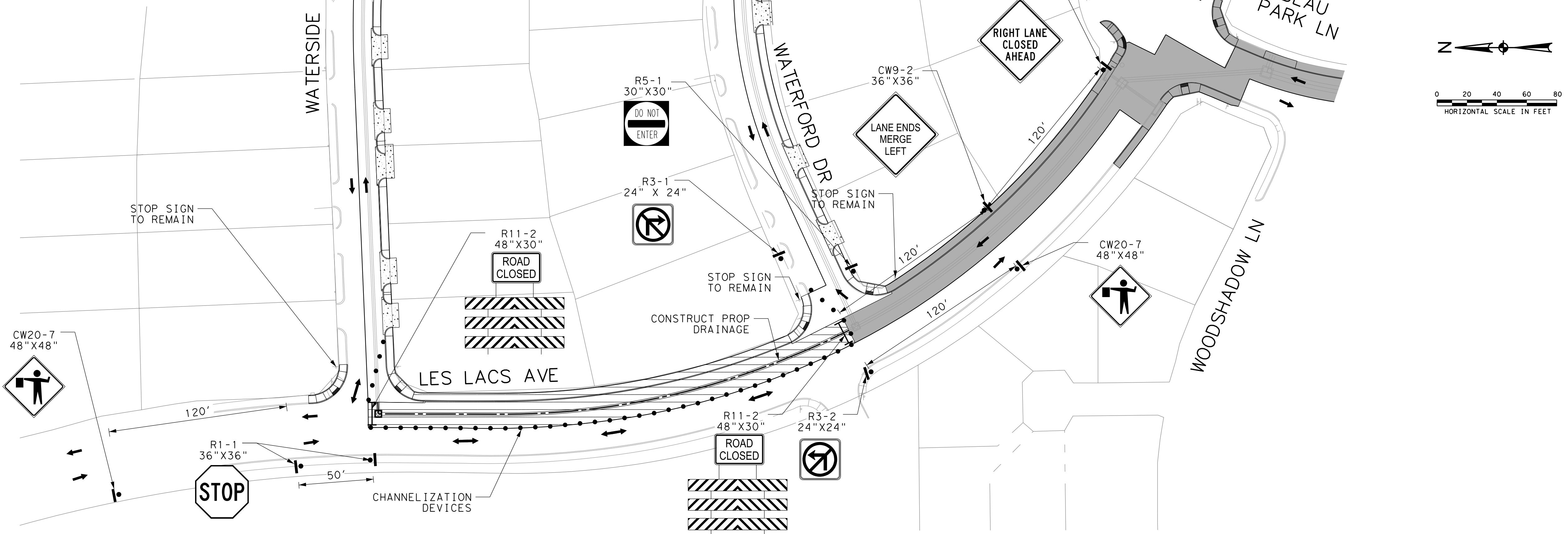
PHASE 5 - STAGE 1



- TCP LEGEND**
- PREVIOUSLY CONSTRUCTED PAVEMENT
 - PROP PAVEMENT THIS PHASE
 - TCP SIGN
 - CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
 - TYPE III BARRICADE
 - TRAFFIC FLOW

- NOTES:**
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
 2. ALL TRAFFIC CONTROL DEVICES SHALL BE TxDOT APPROVED AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE TxDOT STANDARDS.
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 5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
 6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 5 - STAGE 2



SHERRY LYNN WILLIAMS
37940
LICENSED PROFESSIONAL ENGINEER
06/24/2022

REV. NO.	DATE	DESCRIPTION	BY
1			
2			



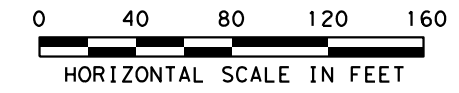
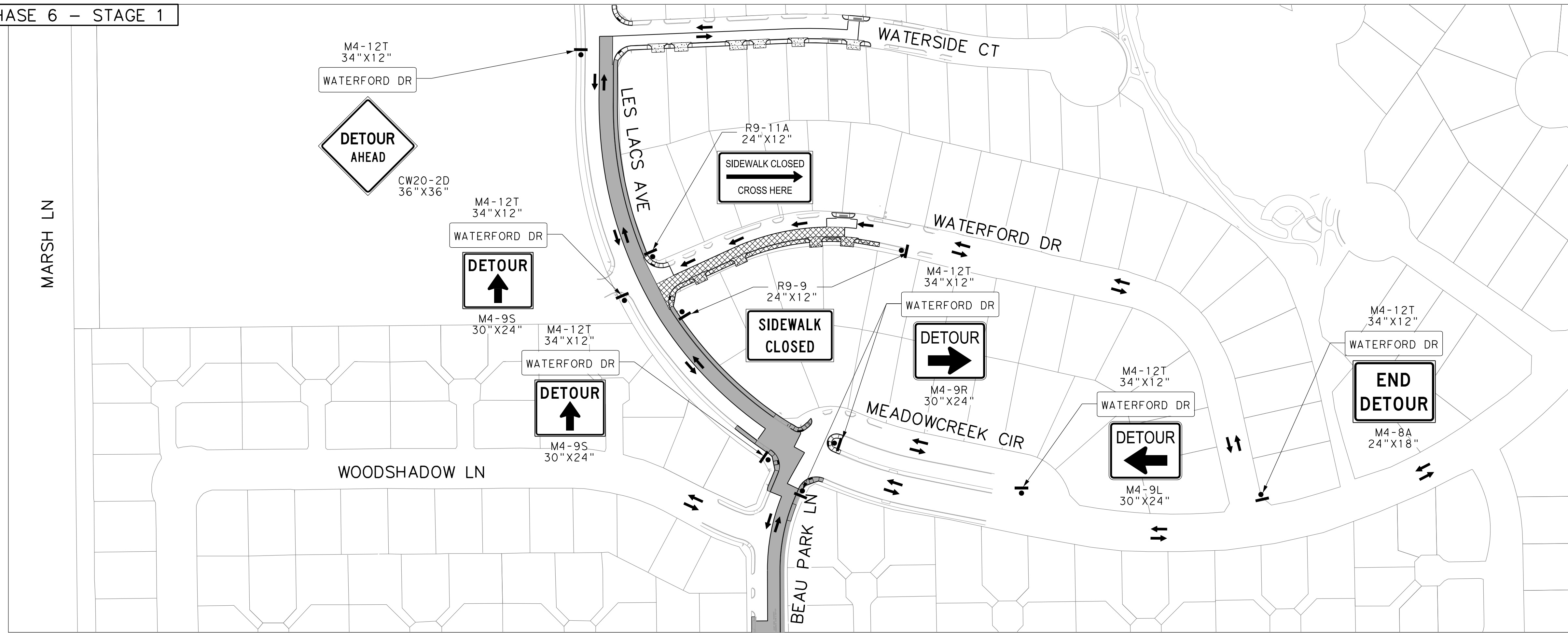
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

TRAFFIC CONTROL PLAN
PHASE 5
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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PHASE 6 - STAGE 1



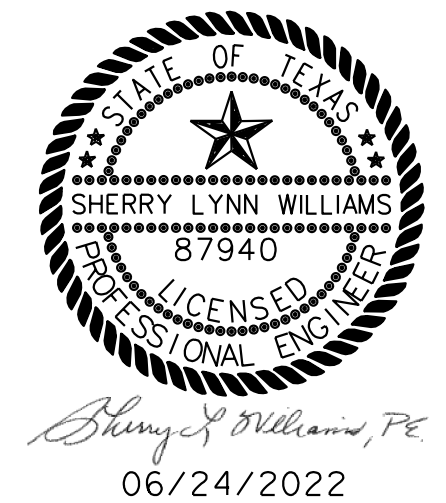
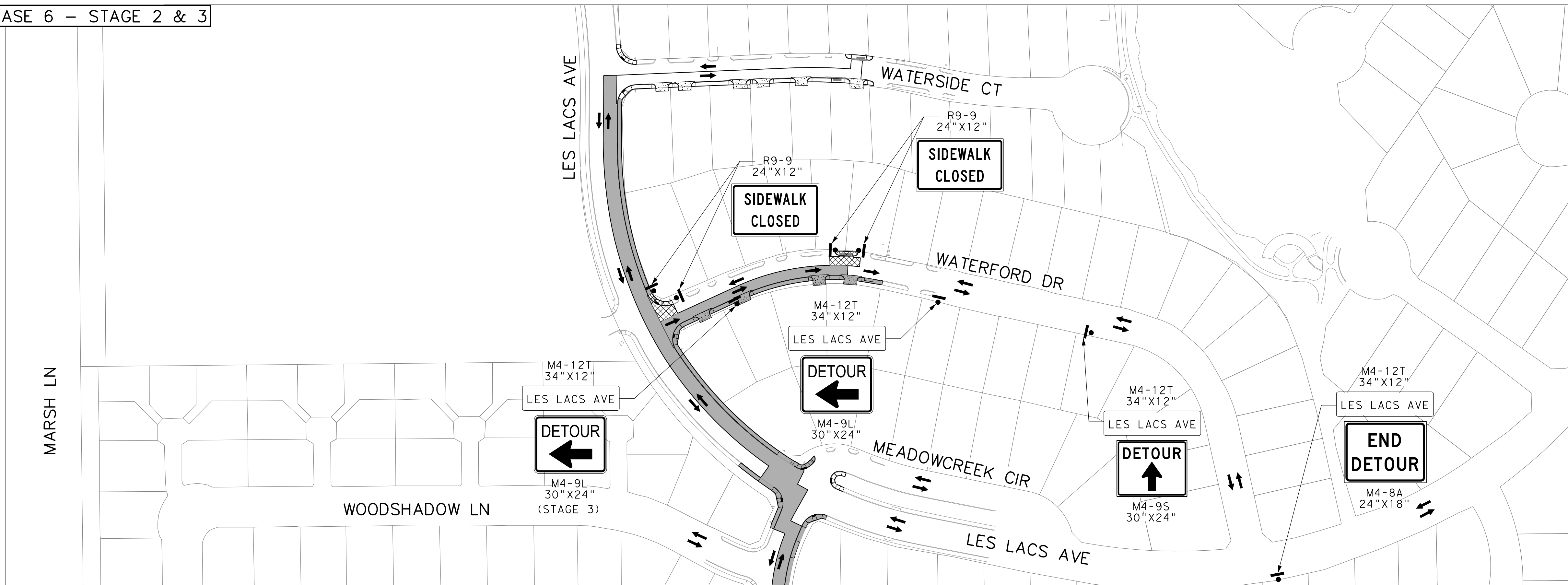
TCP LEGEND

- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO CONSTRUCTION. COORDINATE ACCESS WITH ALL PROPERTY OWNERS.
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3. ANY DEVIATION FROM THE PLAN SHALL REQUIRE THE APPROVAL OF THE PROJECT ENGINEER.
4. THE CONTRACTOR SHALL INSTALL AND REMOVE TEMPORARY PAVEMENT AS REQUIRED TO MAINTAIN A SMOOTH DRIVING SURFACE FROM PROPOSED PAVEMENT TO EXISTING PAVEMENT TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 6 - STAGE 2 & 3



REV NO.	DATE	DESCRIPTION	BY
1			
2			



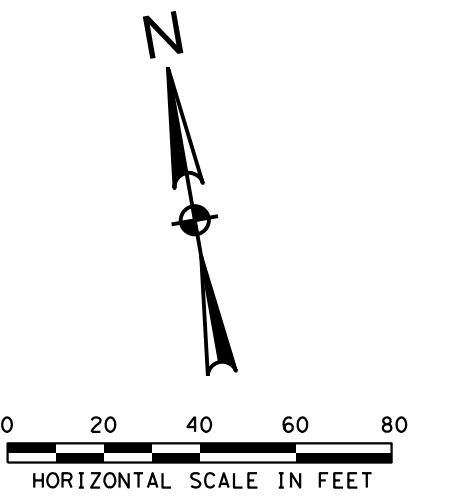
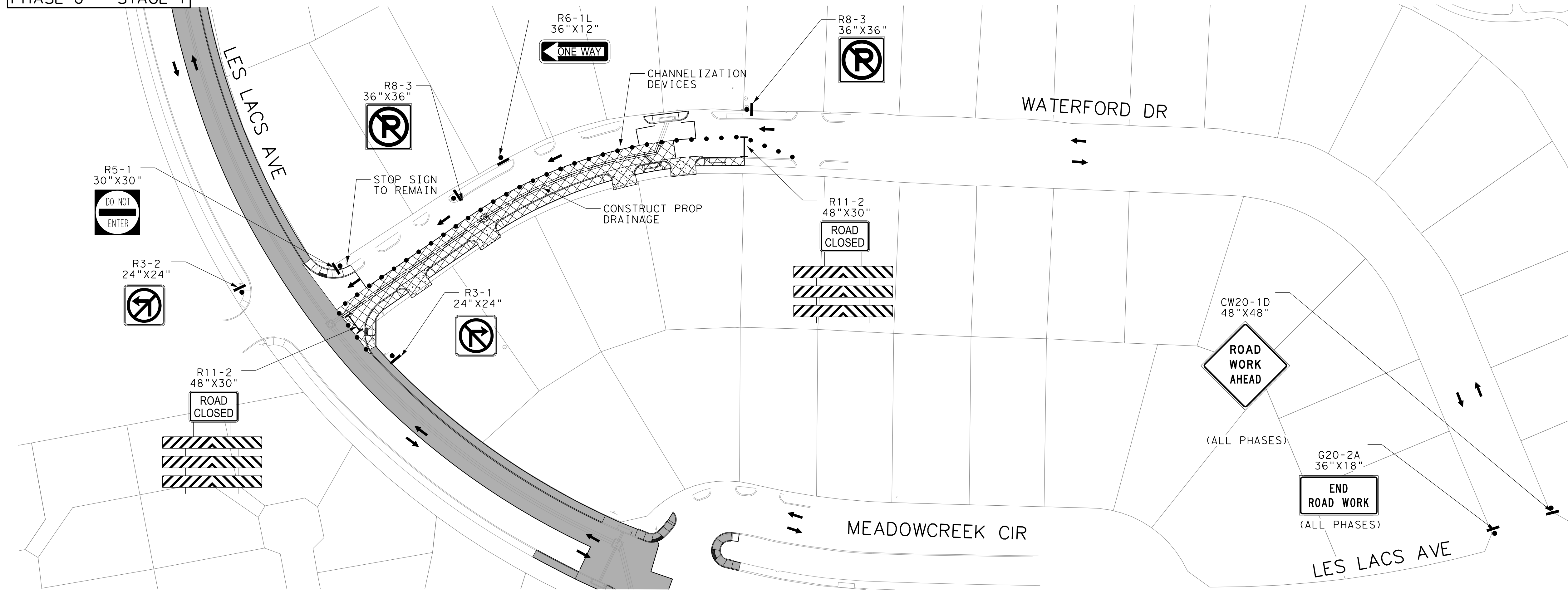
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

TRAFFIC CONTROL PLAN
PHASE 6 DETOUR MAP
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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PHASE 6 - STAGE 1

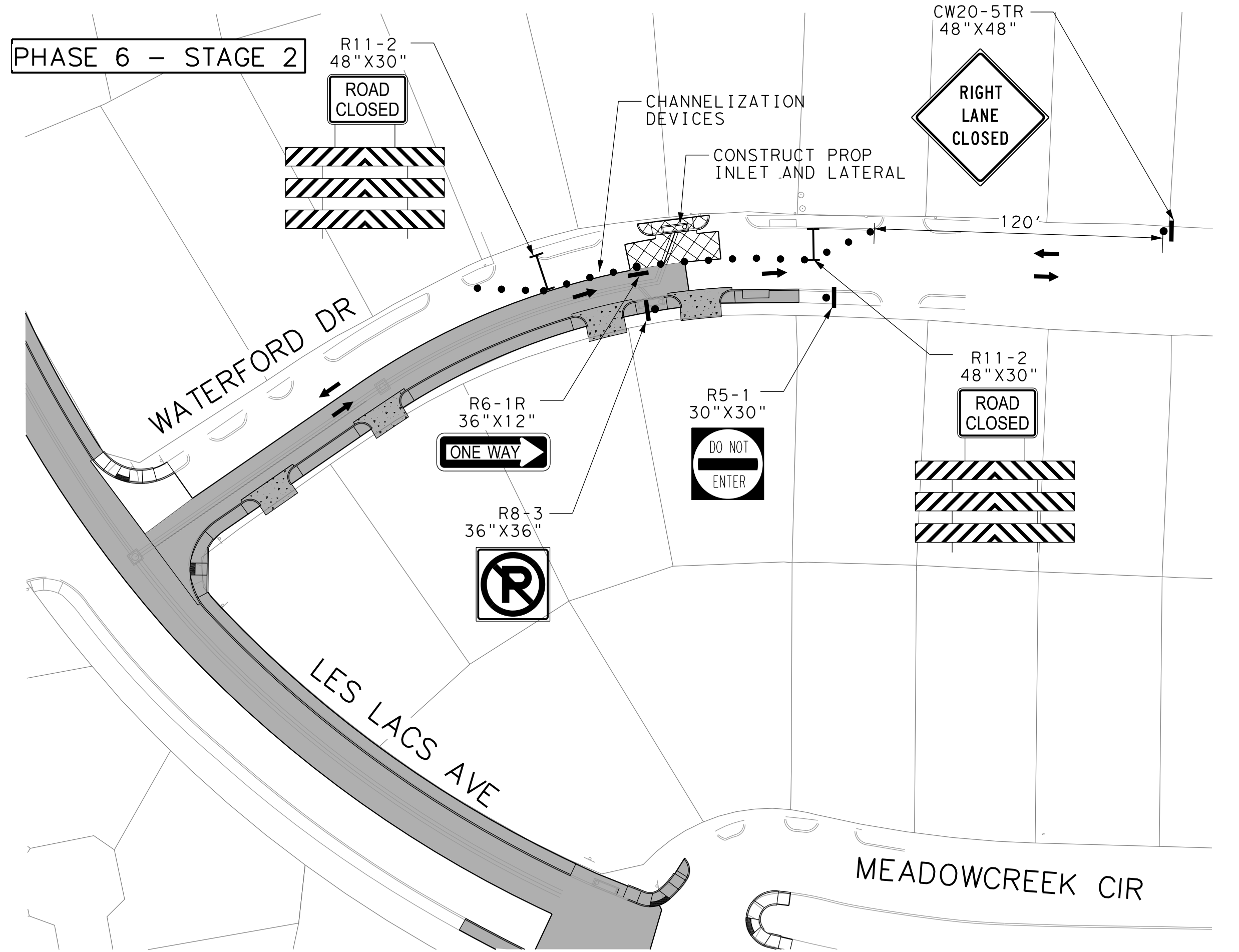


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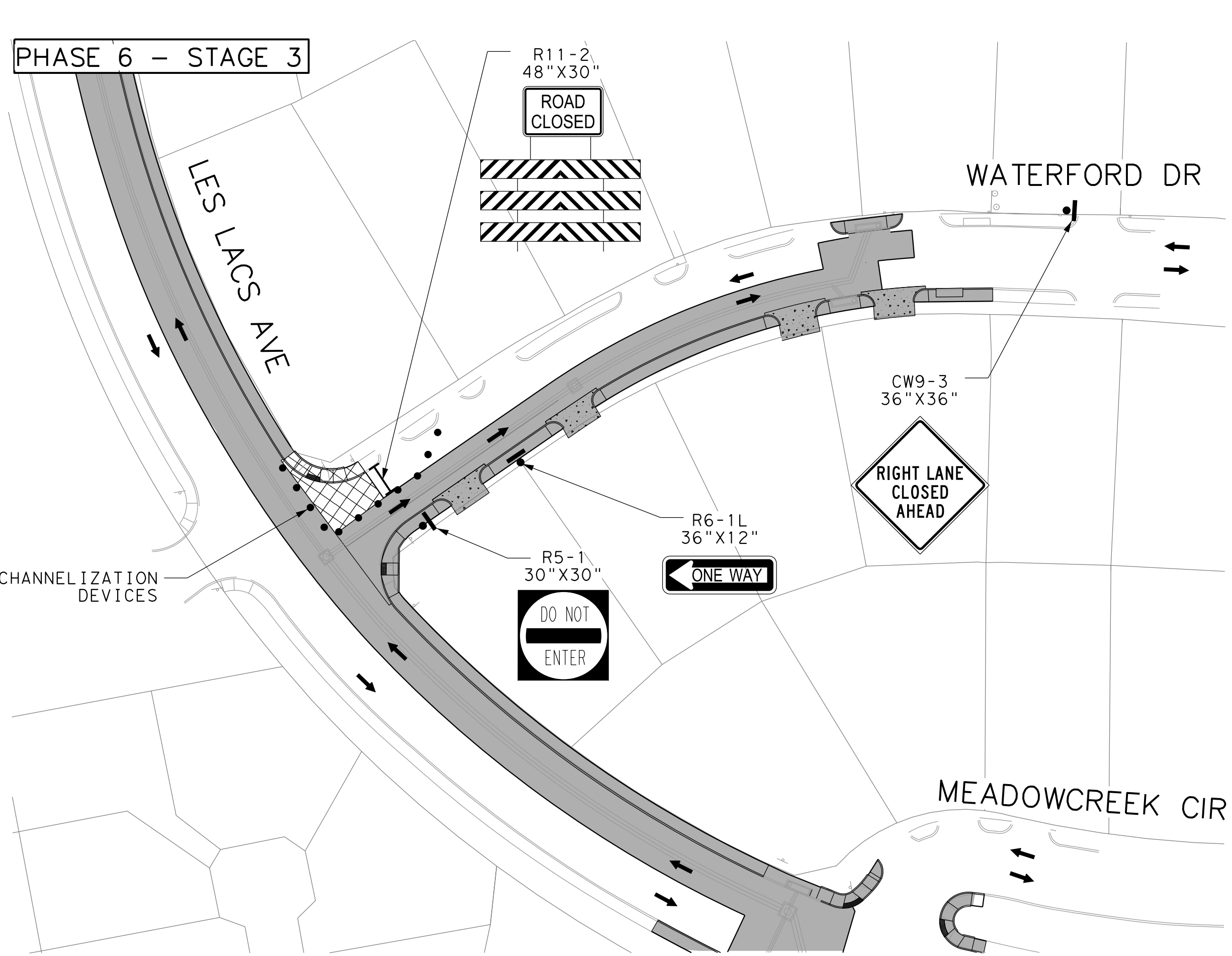
- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

- NOTES:
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 5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
 6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 6 - STAGE 2



PHASE 6 - STAGE 3



REV NO.	DATE	DESCRIPTION	BY
1			
2			



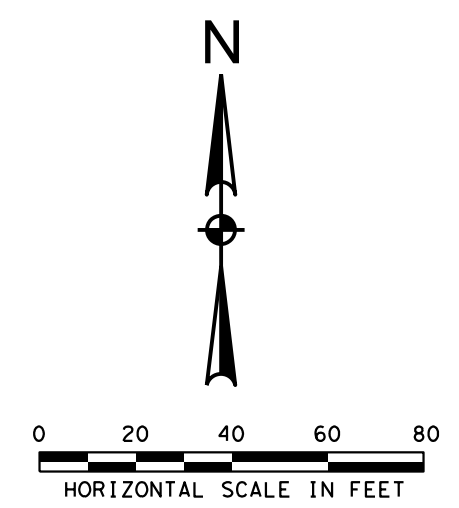
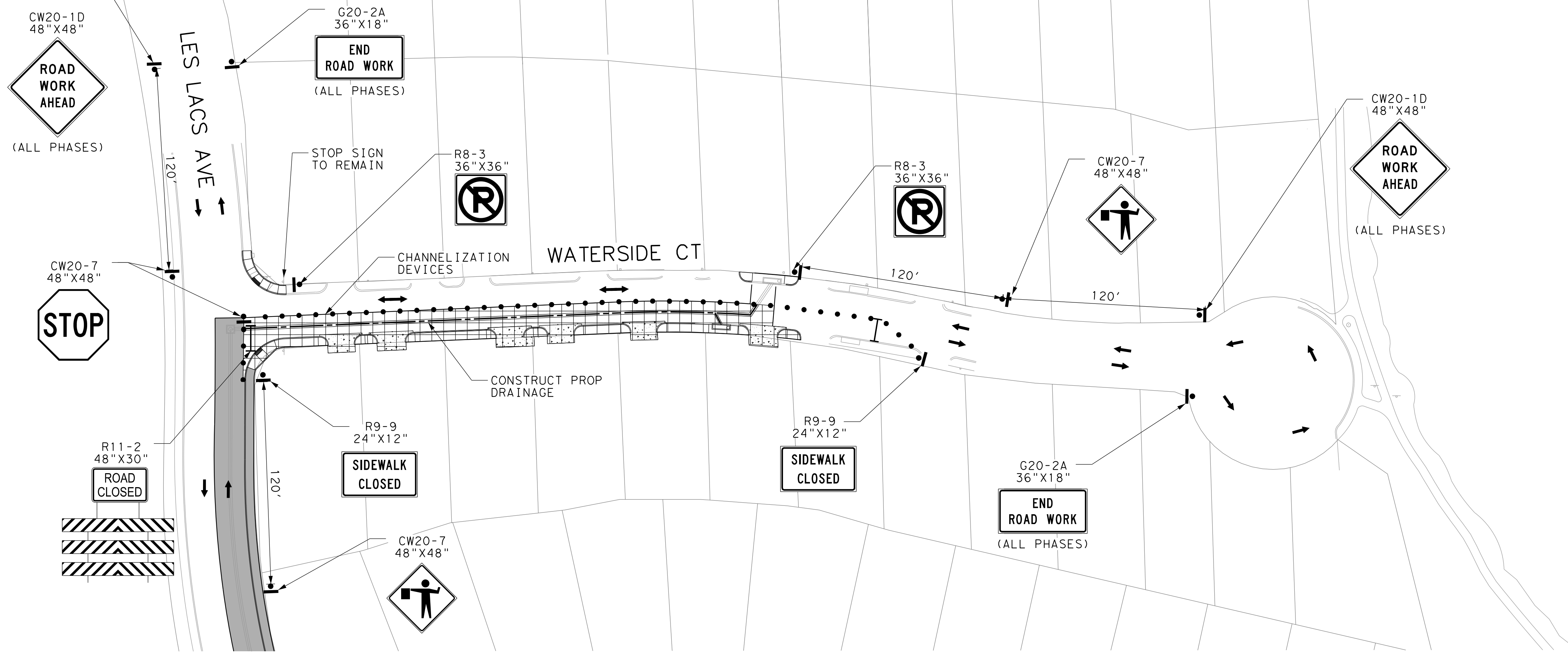
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

TRAFFIC CONTROL PLAN
PHASE 6
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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PHASE 7 - STAGE 1

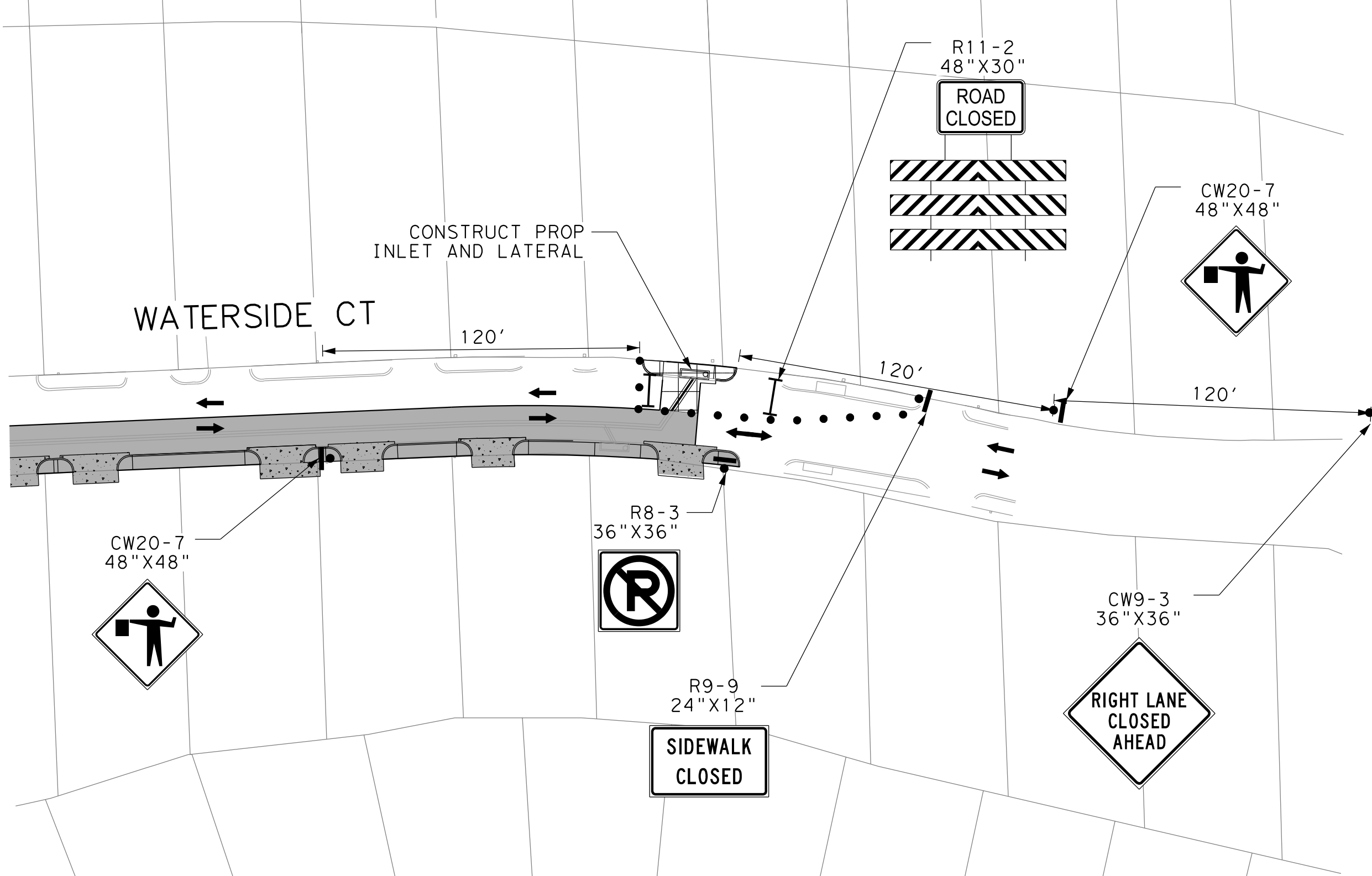


TCP LEGEND

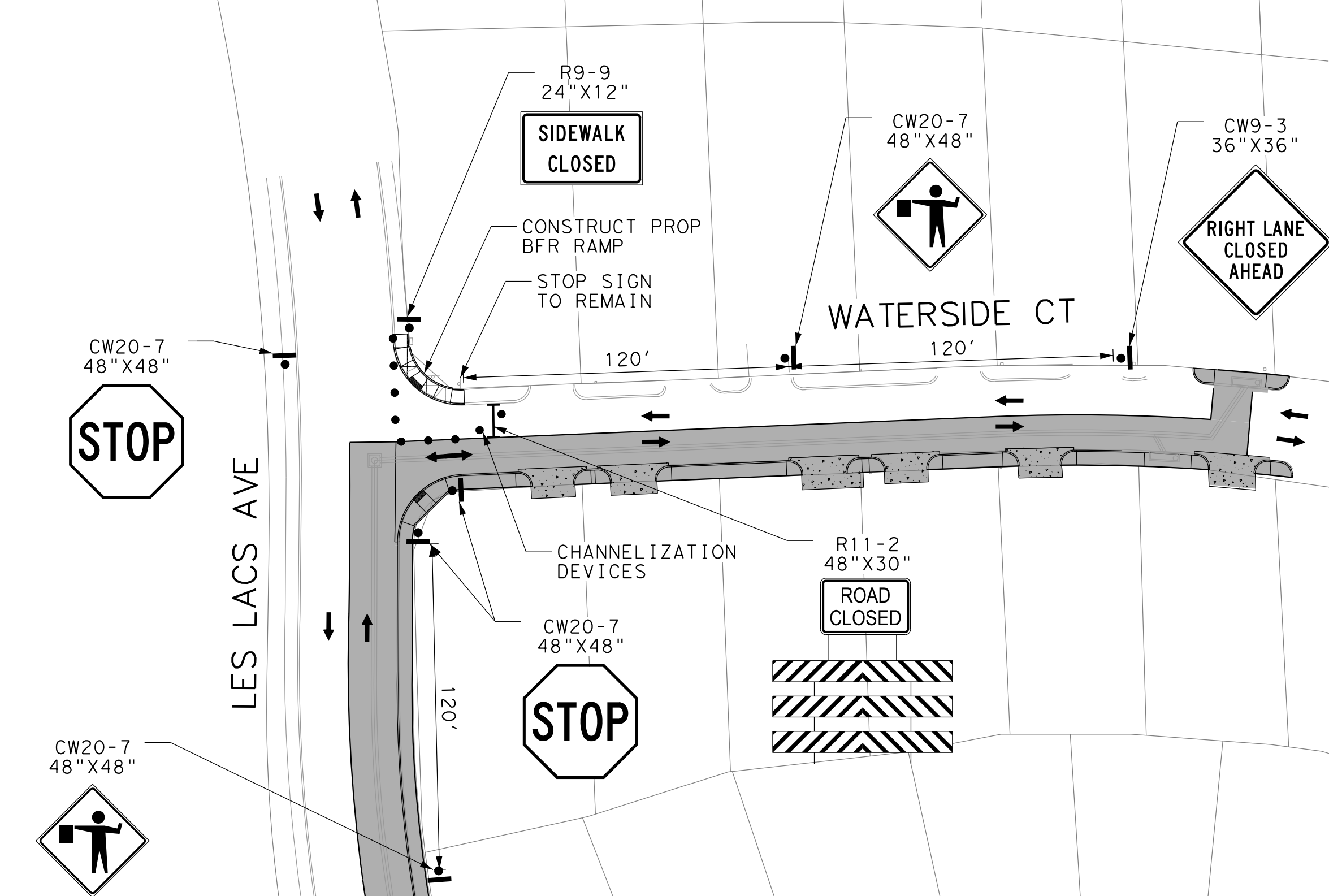
- PREVIOUSLY CONSTRUCTED PAVEMENT
- PROP PAVEMENT THIS PHASE
- TCP SIGN
- CHANNELIZATION DEVICES (30' MAX SPACING ON TAPER) (60' MAX SPACING ON TANGENT)
- TYPE III BARRICADE
- TRAFFIC FLOW

- NOTES:
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 5. THE CONTRACTOR SHALL LEAVE NO OPEN TRENCHES AT THE END OF THE WORK DAY.
 6. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PHASE 7 - STAGE 2



PHASE 7 - STAGE 3



REV NO.	DATE	DESCRIPTION	BY
1			
2			

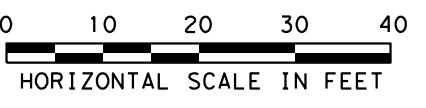
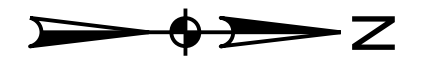


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

TRAFFIC CONTROL PLAN
PHASE 7
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		27

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LEGEND

- PROPOSED REINFORCED CONCRETE PAVEMENT
- PROPOSED REINFORCED CONCRETE DRIVEWAY PAVEMENT
- PROPOSED REINFORCED CONCRETE SIDEWALK
- DRIVEWAY NUMBER

NOTES:

1. ALL DIMENSIONS AND STATION/OFFSETS ARE BASED ON THE CENTERLINE FOR THE PROPOSED STORM DRAIN TRUNK LINE.
2. UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
3. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
4. SURFACE OF PROPOSED SIDEWALK SHALL BE EXPOSED AGGREGATE (MATCH EXISTING SURFACE).
5. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
6. NO SEPARATE PAY ITEM FOR PAVEMENT REPAIR HEADER. THIS ITEM SHALL BE SUBSIDIARY TO REINFORCED CONCRETE PAVEMENT ITEM.
7. REFER TO REMOVAL SHEETS 7-12 FOR TREE REMOVAL/MITIGATION SCHEDULE.
8. FINAL SIDEWALK LIMITS TO BE DETERMINED IN FIELD BY ENGINEER.



Sherry L. Williams, P.E.
06/24/2022

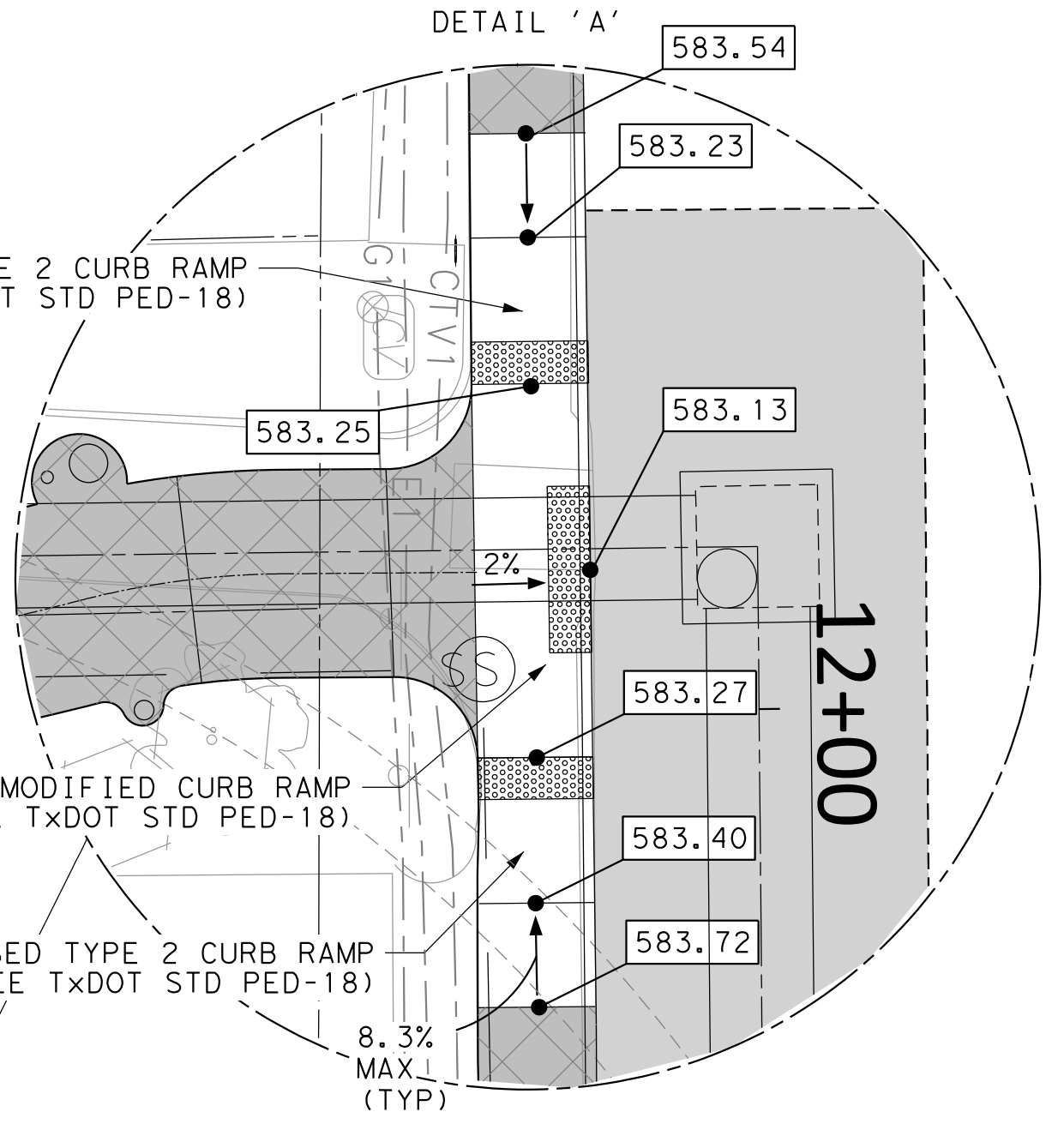
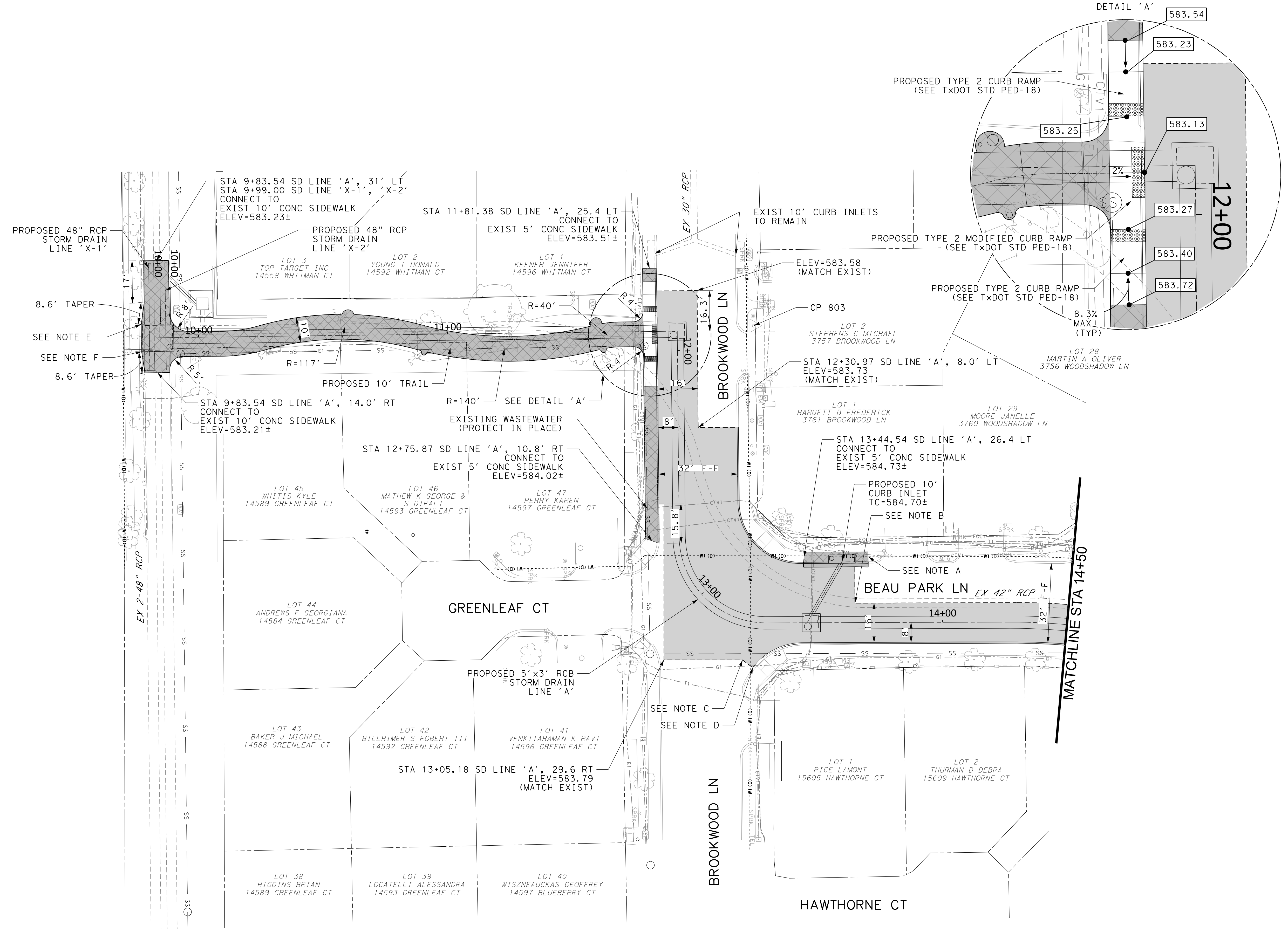
REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

PAVING PLAN
SD LINE 'A' BEGIN TO STA 14+50
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

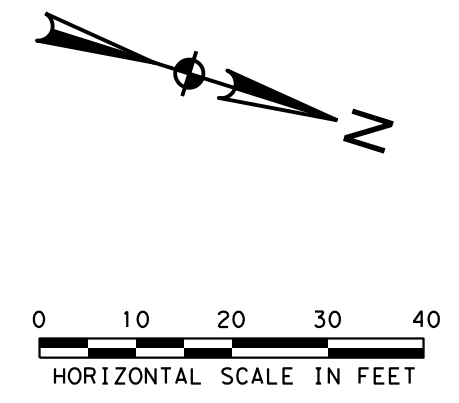
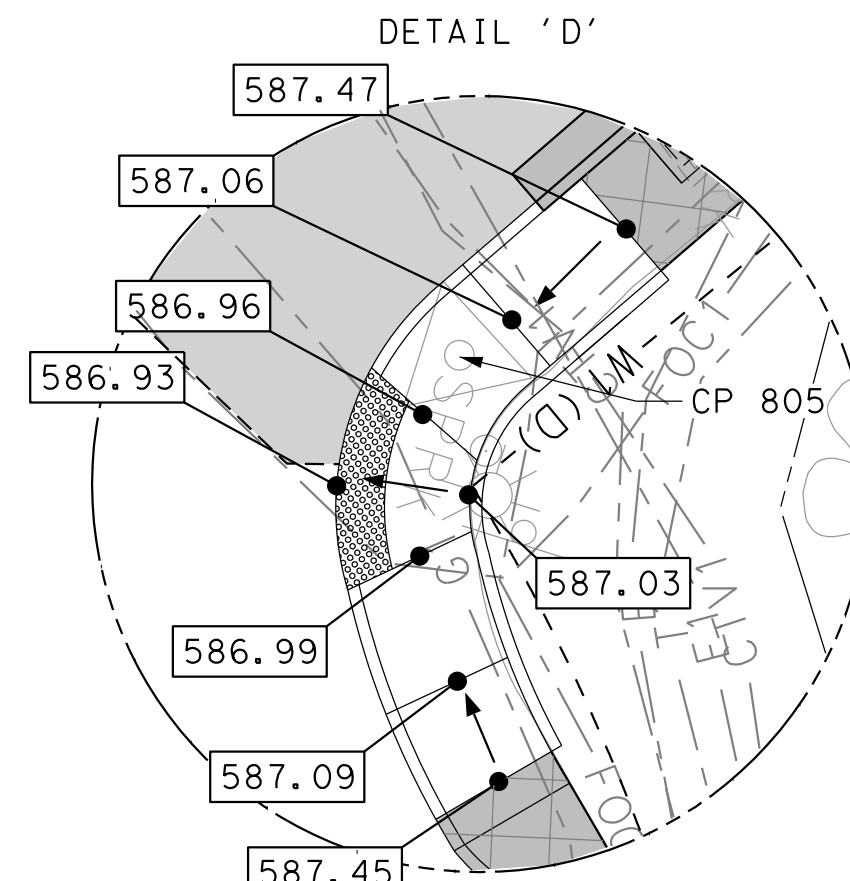
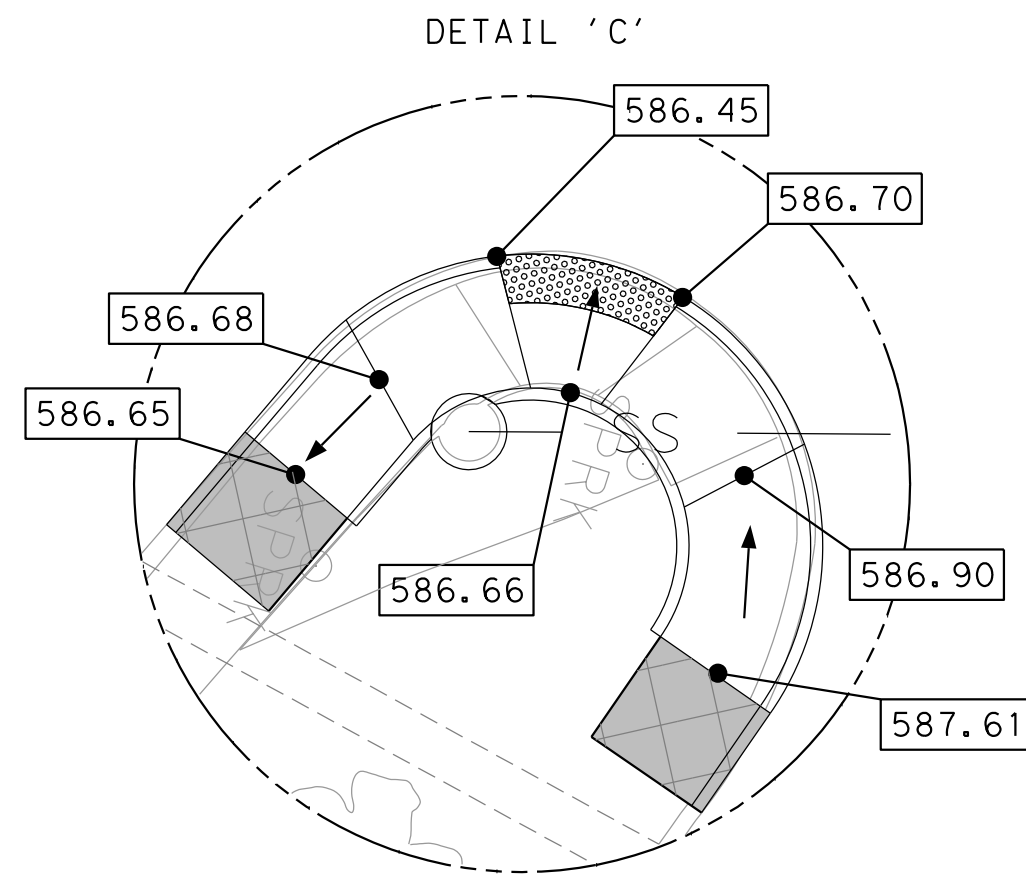
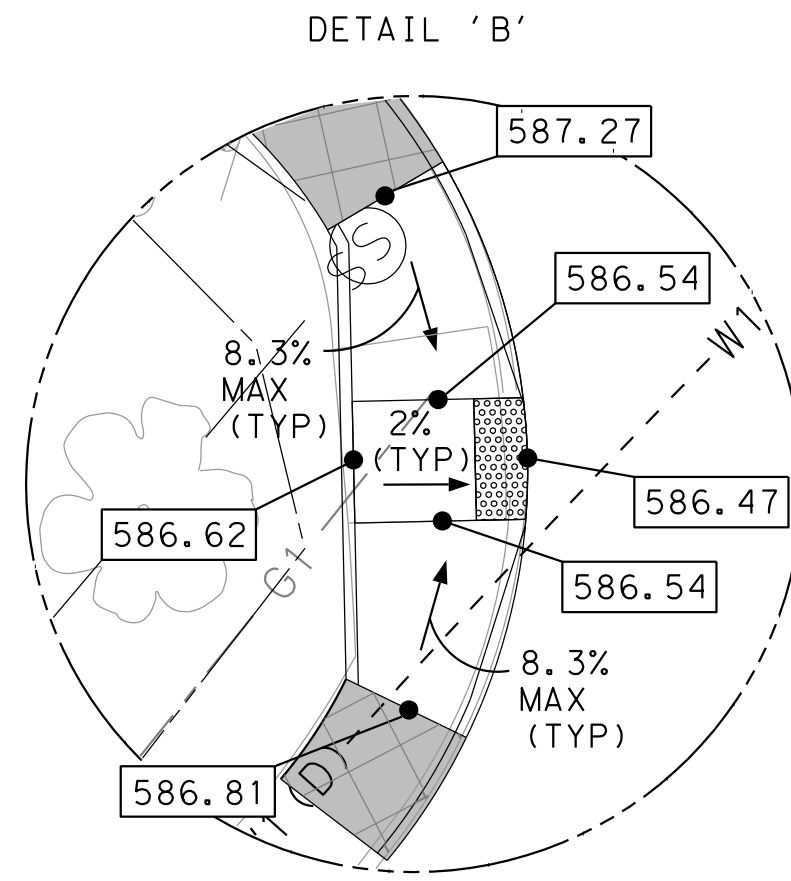
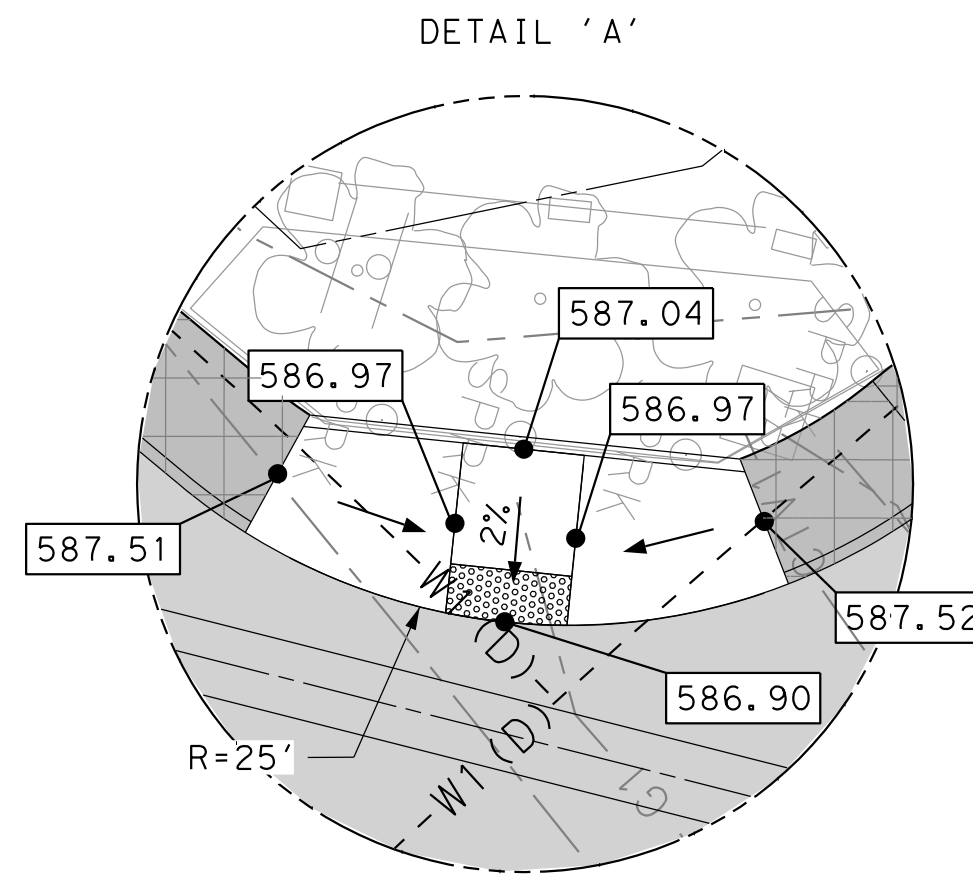
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		28



BENCHMARKS & CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 803	7030438.75	2473682.69	584.48	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"

- A. STA 13+70.31 SD LINE 'A', 26.4 LT CONNECT TO EXIST 5' CONC SIDEWALK ELEV=585.00±
- B. STA 13+64.90 SD LINE 'A', 7.8 LT ELEV=584.66± (MATCH EXIST)
- C. STA 13+22.70 SD LINE 'A', 15.8 RT ELEV=583.78± (MATCH EXIST)
- D. STA 13+25.72 SD LINE 'A', 18.2 RT ELEV=583.84± (MATCH EXIST)
- E. STA 10+24.51 SD LINE 'X-1', 3.2' RT ELEV= 583.27
- F. STA 10+35.51 SD LINE 'X-1', 3.2' RT ELEV=583.27

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- LEGEND**
- PROPOSED REINFORCED CONCRETE PAVEMENT
 - PROPOSED REINFORCED CONCRETE DRIVEWAY PAVEMENT
 - PROPOSED REINFORCED CONCRETE SIDEWALK
 - DRIVEWAY NUMBER

- NOTES:**
1. ALL DIMENSIONS AND STATION/OFFSETS ARE BASED ON THE CENTERLINE FOR THE PROPOSED STORM DRAIN TRUNK LINE.
 2. UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
 3. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
 4. SURFACE OF PROPOSED SIDEWALK SHALL BE EXPOSED AGGREGATE (MATCH EXISTING SURFACE).
 5. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
 6. NO SEPARATE PAY ITEM FOR PAVEMENT REPAIR HEADER. THIS ITEM SHALL BE SUBSIDIARY TO REINFORCED CONCRETE PAVEMENT ITEM.
 7. REFER TO REMOVAL SHEETS 7-12 FOR TREE REMOVAL/MITIGATION SCHEDULE.
 8. FINAL SIDEWALK LIMITS TO BE DETERMINED IN FIELD BY ENGINEER.



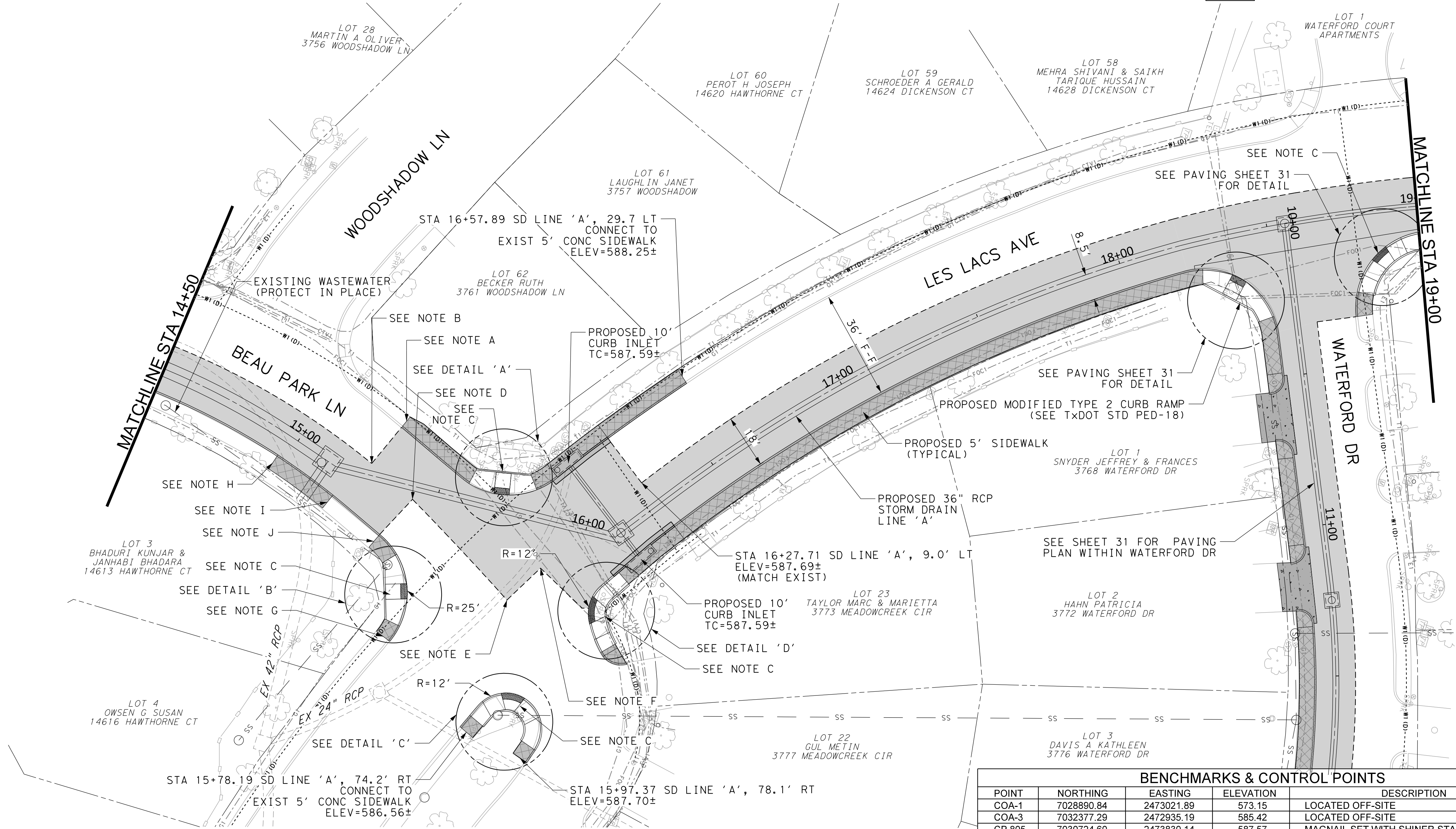
REV. NO.	DATE	DESCRIPTION	BY
1			
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

**PAVING PLAN
SD LINE 'A' STA 14+50 TO STA 19+00
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		29



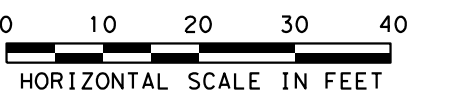
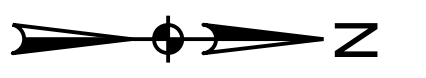
BENCHMARKS & CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 805	7030724.60	2473830.14	587.57	MAGNAIL SET WITH SHINER STAMPED "CRIADO"

- | | | | | |
|---|--|---|---|---|
| <p>A. STA 15+33.92 SD LINE 'A', 20.8' LT CONNECT TO EXIST 4' CONCRETE SIDEWALK ELEV=587.34</p> <p>B. STA 15+26.22 SD LINE 'A', 3.9' LT ELEV=586.98± (MATCH EXIST)</p> | <p>C. PROPOSED MODIFIED TYPE 2 CURB RAMP (SEE TxDOT STD PED-18) REFER TO TOWN OF ADDISON DETAIL SD-P41 FOR THE INSTALLATION OF THE DETECTABLE WARNING SURFACE</p> <p>D. STA 15+42.68 SD LINE 'A', 4.3' RT ELEV=587.21± (MATCH EXIST)</p> | <p>E. STA 15+80.44 SD LINE 'A', 28.5' LT ELEV=586.95± (MATCH EXIST)</p> <p>F. STA 15+88.58 SD LINE 'A', 15.9' RT ELEV=587.13± (MATCH EXIST)</p> | <p>G. STA 15+43.89 SD LINE 'A', 50.4' LT CONNECT TO EXIST 5' CONCRETE SIDEWALK ELEV=586.70'</p> <p>H. STA 14+96.97 SD LINE 'A', 11' RT CONNECT TO EXIST 5' CONCRETE SIDEWALK ELEV=586.61'</p> | <p>I. STA 15+15.17 SD LINE 'A', 12.1' RT CONNECT TO EXIST 5' CONCRETE SIDEWALK ELEV=587.02'</p> <p>J. STA 15+33.20 SD LINE 'A', 20.8' RT CONNECT TO EXIST 5' CONCRETE SIDEWALK ELEV=587.25'</p> |
|---|--|---|---|---|

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BENCHMARKS & CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 806	7030924.57	2473583.64	592.49	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
CP 807	7031204.22	2473610.95	595.97	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"

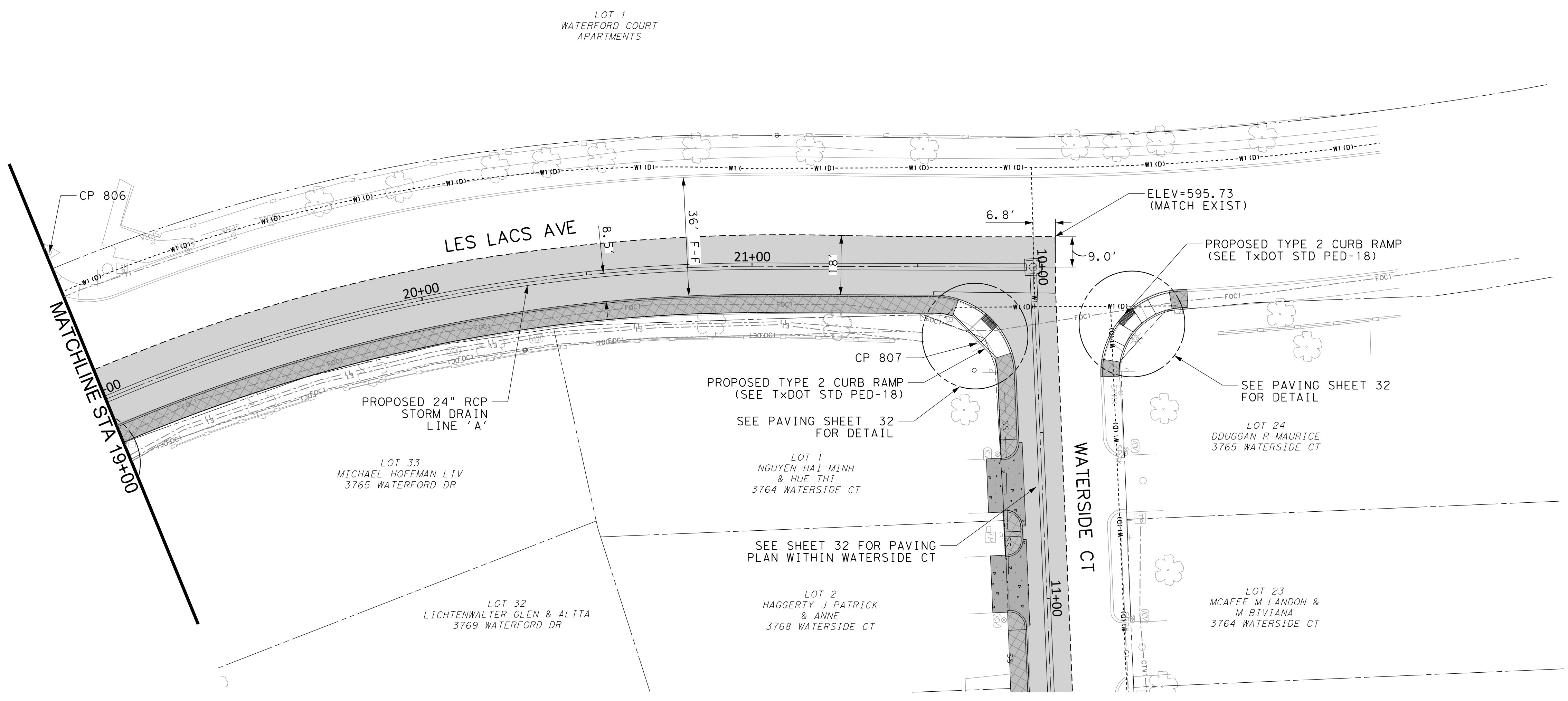


LEGEND

- PROPOSED REINFORCED CONCRETE PAVEMENT
- PROPOSED REINFORCED CONCRETE DRIVEWAY PAVEMENT
- PROPOSED REINFORCED CONCRETE SIDEWALK
- DRIVEWAY NUMBER

NOTES:

1. ALL DIMENSIONS AND STATION/OFFSETS ARE BASED ON THE CENTERLINE FOR THE PROPOSED STORM DRAIN TRUNK LINE.
2. UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
3. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
4. SURFACE OF PROPOSED SIDEWALK SHALL BE EXPOSED AGGREGATE (MATCH EXISTING SURFACE).
5. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
6. NO SEPARATE PAY ITEM FOR PAVEMENT REPAIR HEADER. THIS ITEM SHALL BE SUBSIDIARY TO REINFORCED CONCRETE PAVEMENT ITEM.
7. REFER TO REMOVAL SHEETS 7-12 FOR TREE REMOVAL/MITIGATION SCHEDULE.
8. FINAL SIDEWALK LIMITS TO BE DETERMINED IN FIELD BY ENGINEER.



REV. NO.	DATE	DESCRIPTION	BY
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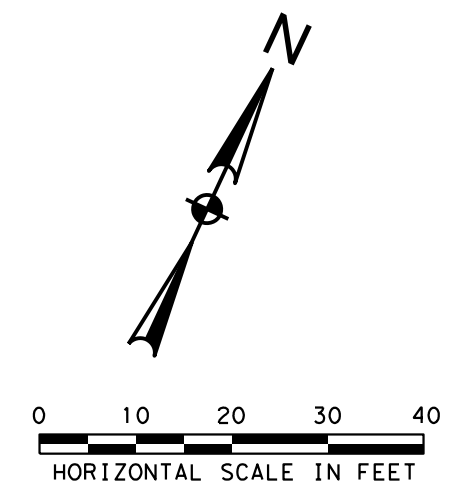


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

PAVING PLAN
SD LINE 'A' STA 19+00 TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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LEGEND

	PROPOSED REINFORCED CONCRETE PAVEMENT
	PROPOSED REINFORCED CONCRETE DRIVEWAY PAVEMENT
	PROPOSED REINFORCED CONCRETE SIDEWALK
(1)	DRIVEWAY NUMBER

NOTES:

1. ALL DIMENSIONS AND STATION/OFFSETS ARE BASED ON THE CENTERLINE FOR THE PROPOSED STORM DRAIN TRUNK LINE.
2. UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
3. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
4. SURFACE OF PROPOSED SIDEWALK SHALL BE EXPOSED AGGREGATE (MATCH EXISTING SURFACE).
5. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
6. NO SEPARATE PAY ITEM FOR PAVEMENT REPAIR HEADER. THIS ITEM SHALL BE SUBSIDIARY TO REINFORCED CONCRETE PAVEMENT ITEM.
7. REFER TO REMOVAL SHEETS 7-12 FOR TREE REMOVAL/MITIGATION SCHEDULE.
8. FINAL SIDEWALK LIMITS TO BE DETERMINED IN FIELD BY ENGINEER.



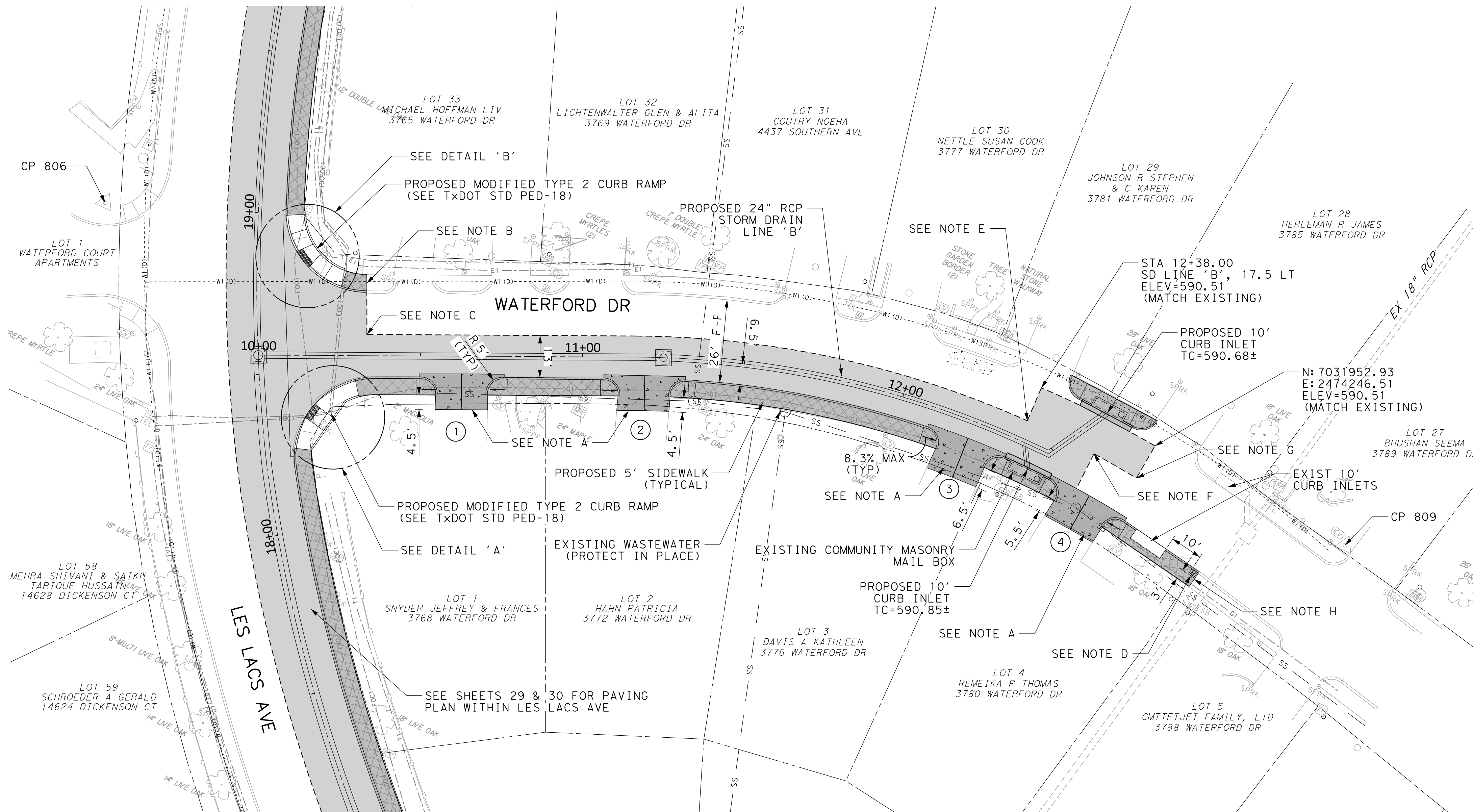
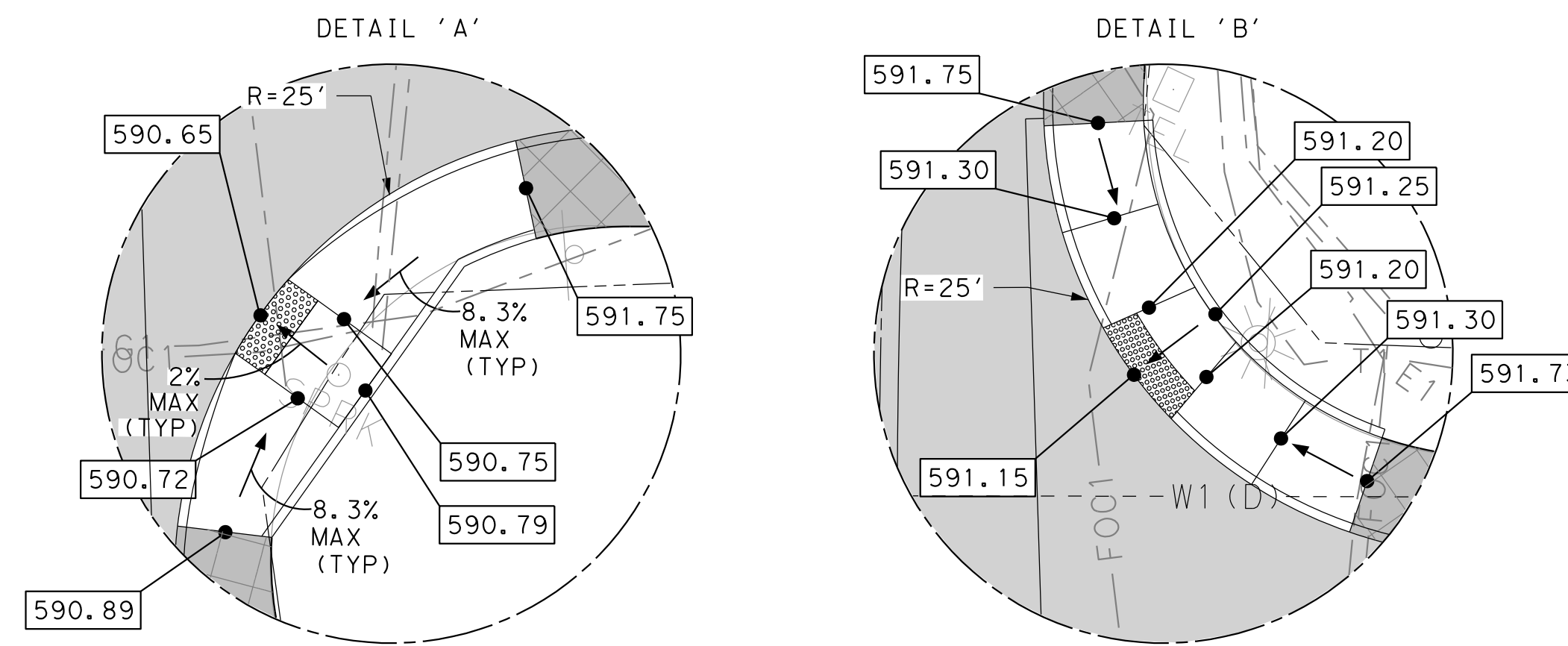
REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

**PAVING PLAN
SD LINE 'B' BEGIN TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

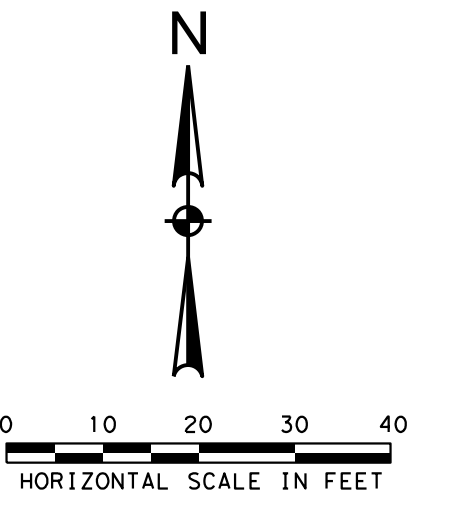
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		31



BENCHMARKS & CONTROL POINTS

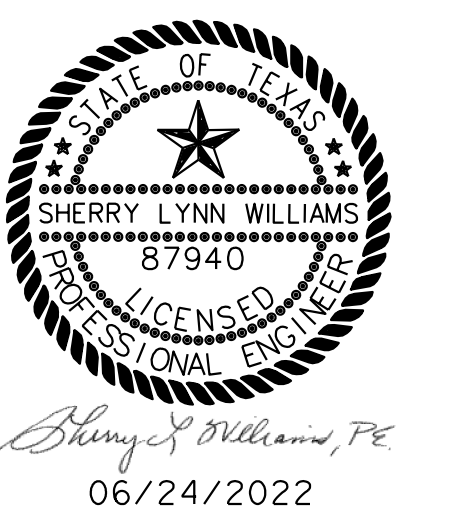
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 806	7030924.57	2473583.64	592.49	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
CP 809	7030990.12	2473974.85	591.48	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"

- | | | |
|--|---|---|
| <p>(1) STA 10+62.68 SD LINE 'B', 16.5' RT 16.1' CONCRETE DRIVEWAY No. 1</p> <p>(2) STA 11+19.29 SD LINE 'B', 16.5' RT 16' CONCRETE DRIVEWAY No. 2</p> <p>(3) STA 12+23.30 SD LINE 'B', 18.5' RT 16.2' CONCRETE DRIVEWAY No. 3</p> <p>(4) 16.9' CONCRETE DRIVEWAY No. 4
N: 7031918.52
E: 2474233.65</p> | <p>A. RECONSTRUCT DRIVEWAY PER TOWN OF ADDISON STD DETAIL AND DRIVEWAY PROFILES (SEE SHEET 33)
TIE-IN GRADE TO MATCH EX ELEV</p> <p>B. STA 10+33.36 SD LINE 'B', 22.3' LT CONNECT TO EXIST 5' CONCRETE SIDEWALK ELEV=591.90 (MATCH EXISTING)</p> <p>C. STA 10+33.47 SD LINE 'B', 6.5' LT ELEV=591.75 (MATCH EXISTING)</p> <p>D. EXISTING COMMUNITY MASONRY MAIL BOX PROPOSED LOCATION AT BACK OF CURB</p> | <p>E. STA 12+38.17 SD LINE 'B', 6.5' LT ELEV=590.96 (MATCH EXISTING)</p> <p>F. STA 12+59.79 SD LINE 'B', 8.0' RT ELEV=590.88 (MATCH EXISTING)</p> <p>G. STA 12+66.16 SD LINE 'B', 21.7' RT ELEV=590.86 (MATCH EXISTING)</p> <p>H. STA 12+62.85 SD LINE 'B', 57.5' LT CONNECT TO EXIST 5' CONCRETE SIDEWALK ELEV=591.02 (MATCH EXISTING)</p> |
|--|---|---|



- LEGEND**
- PROPOSED REINFORCED CONCRETE PAVEMENT
 - PROPOSED REINFORCED CONCRETE DRIVEWAY PAVEMENT
 - PROPOSED REINFORCED CONCRETE SIDEWALK
 - ① DRIVEWAY NUMBER

- NOTES:**
1. ALL DIMENSIONS AND STATION/OFFSETS ARE BASED ON THE CENTERLINE FOR THE PROPOSED STORM DRAIN TRUNK LINE.
 2. UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
 3. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
 4. SURFACE OF PROPOSED SIDEWALK SHALL BE EXPOSED AGGREGATE (MATCH EXISTING SURFACE).
 5. TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS.
 6. NO SEPARATE PAY ITEM FOR PAVEMENT REPAIR HEADER. THIS ITEM SHALL BE SUBSIDIARY TO REINFORCED CONCRETE PAVEMENT ITEM.
 7. REFER TO REMOVAL SHEETS 7-12 FOR TREE REMOVAL/MITIGATION SCHEDULE.
 8. FINAL SIDEWALK LIMITS TO BE DETERMINED IN FIELD BY ENGINEER.



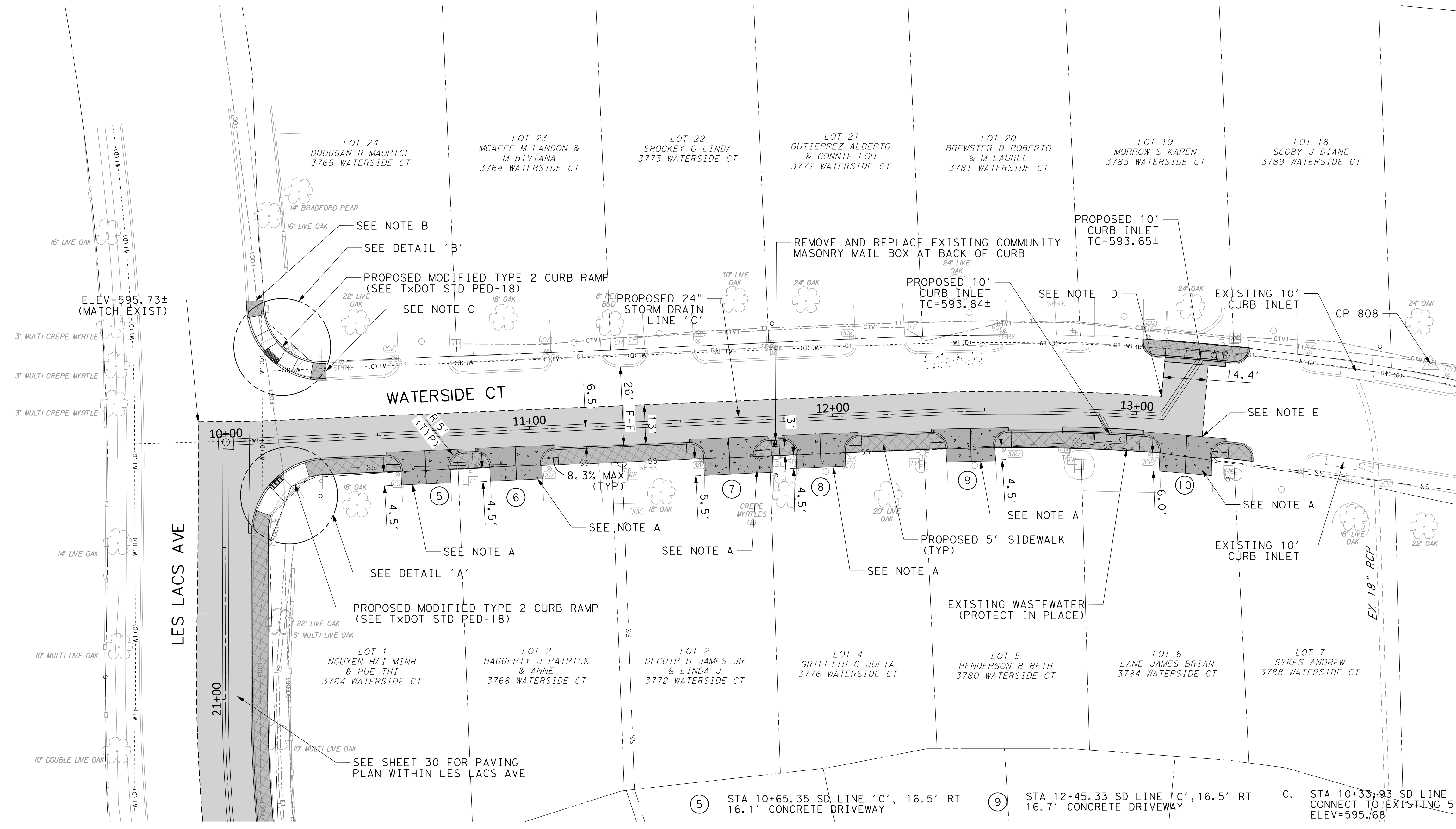
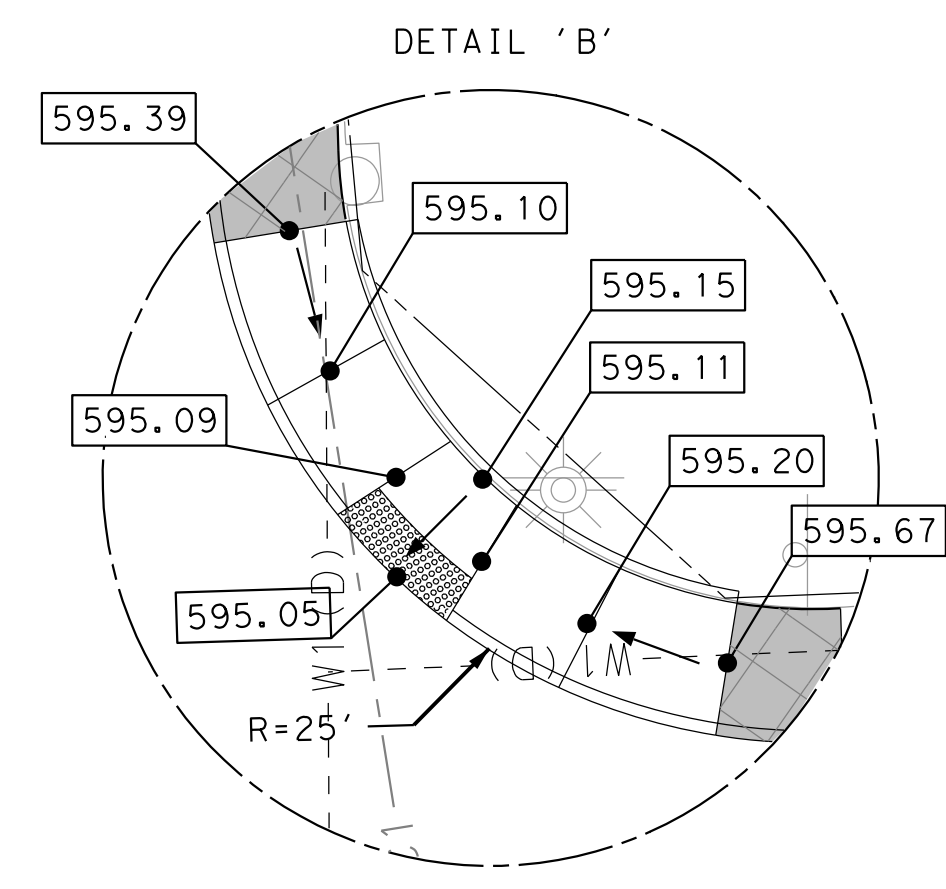
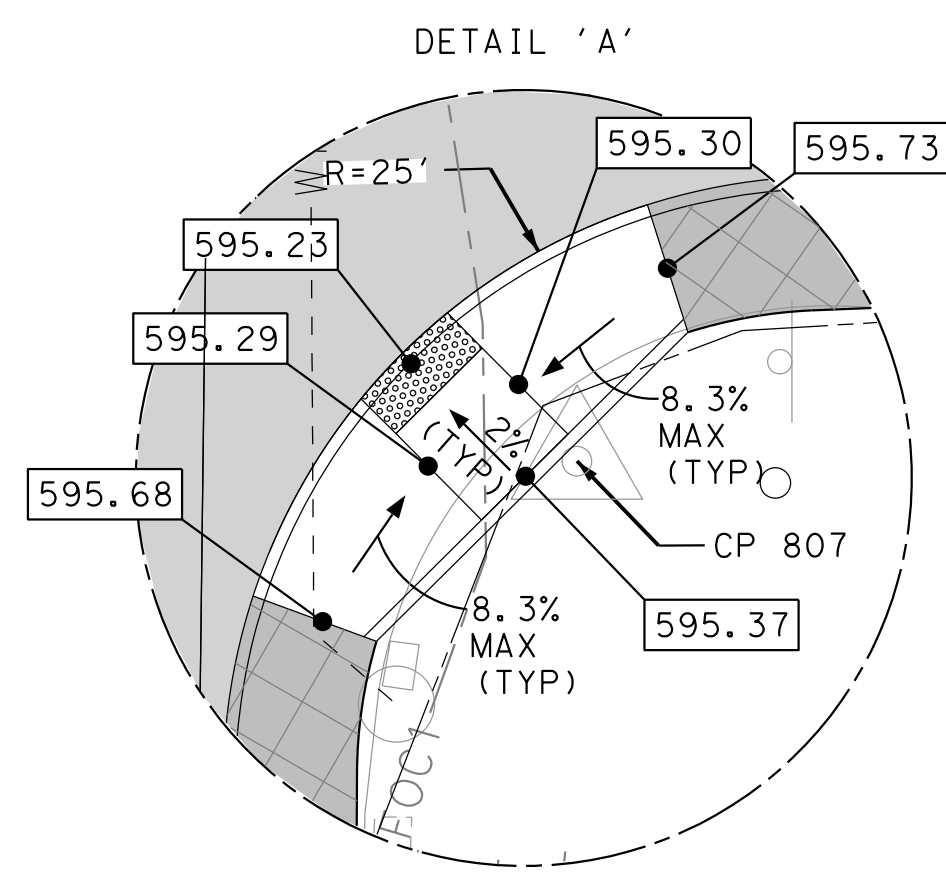
REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

**PAVING PLAN
SD LINE 'C' BEGIN TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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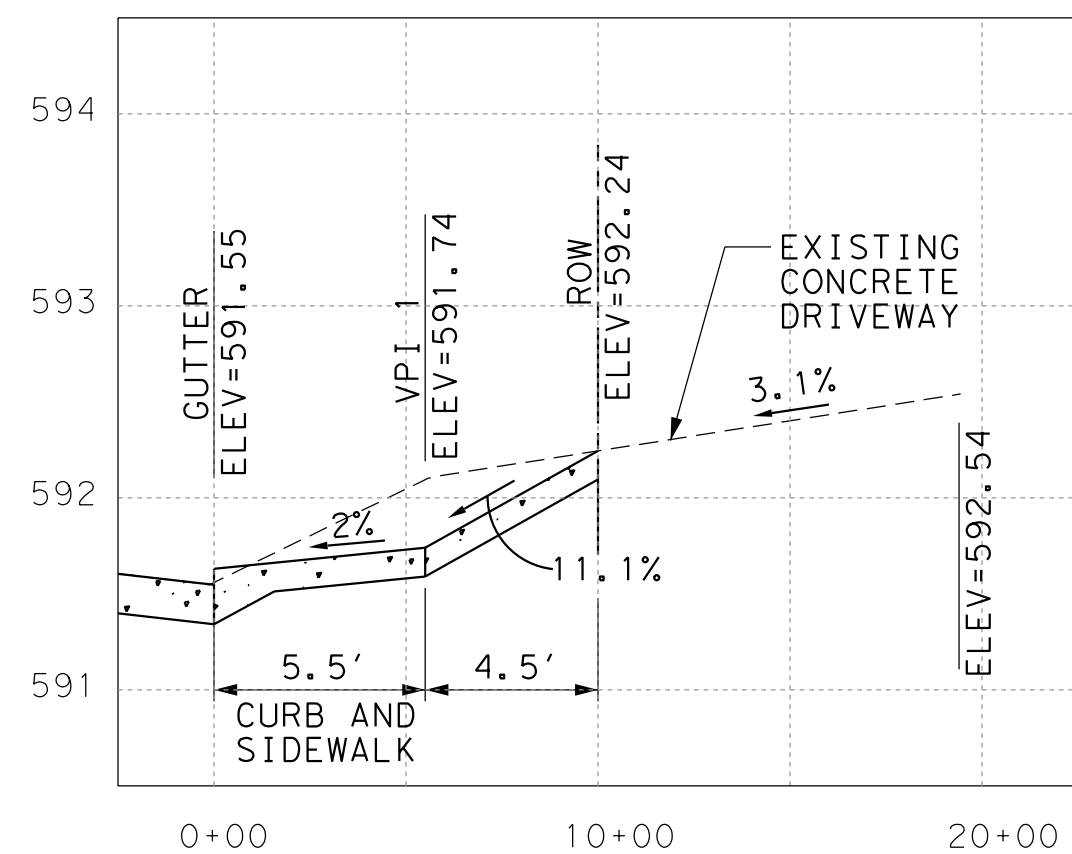


BENCHMARKS & CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 807	7031204.22	2473610.95	595.97	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
CP 808	7031246.57	2473974.85	594.78	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"

- ⑤ STA 10+65.35 SD LINE 'C', 16.5' RT 16.1' CONCRETE DRIVEWAY
- ⑥ STA 10+95.08 SD LINE 'C', 16.5' RT 16.7' CONCRETE DRIVEWAY
- ⑦ STA 11+65.46 SD LINE 'C', 17.5' RT 16' CONCRETE DRIVEWAY
- ⑧ STA 11+95.52 SD LINE 'C', 16.5' RT 16.1' CONCRETE DRIVEWAY
- ⑨ STA 12+45.33 SD LINE 'C', 16.5' RT 16.7' CONCRETE DRIVEWAY
- ⑩ 16.9' CONCRETE DRIVEWAY
N=7032170.59
E=2474241.62
- C. STA 10+33.93 SD LINE 'C', 22.0' LT CONNECT TO EXISTING 5' SIDEWALK ELEV=595.68
- D. STA 13+13.90 SD LINE 'C', 3.7' LT ELEV=593.85 (MATCH EXISTING)
- E. STA 13+10.41 SD LINE 'C', 14.7' RT ELEV=593.44± (MATCH EXISTING)
- A. RECONSTRUCT DRIVEWAY PER TOWN OF ADDISON STD DETAIL AND DRIVEWAY PROFILES (SEE SHEET 33) TIE-IN GRADE TO MATCH EX ELEV
- B. STA 10+11.66 SD LINE 'C', 46.1' LT CONNECT TO EXISTING 5' SIDEWALK ELEV=595.31

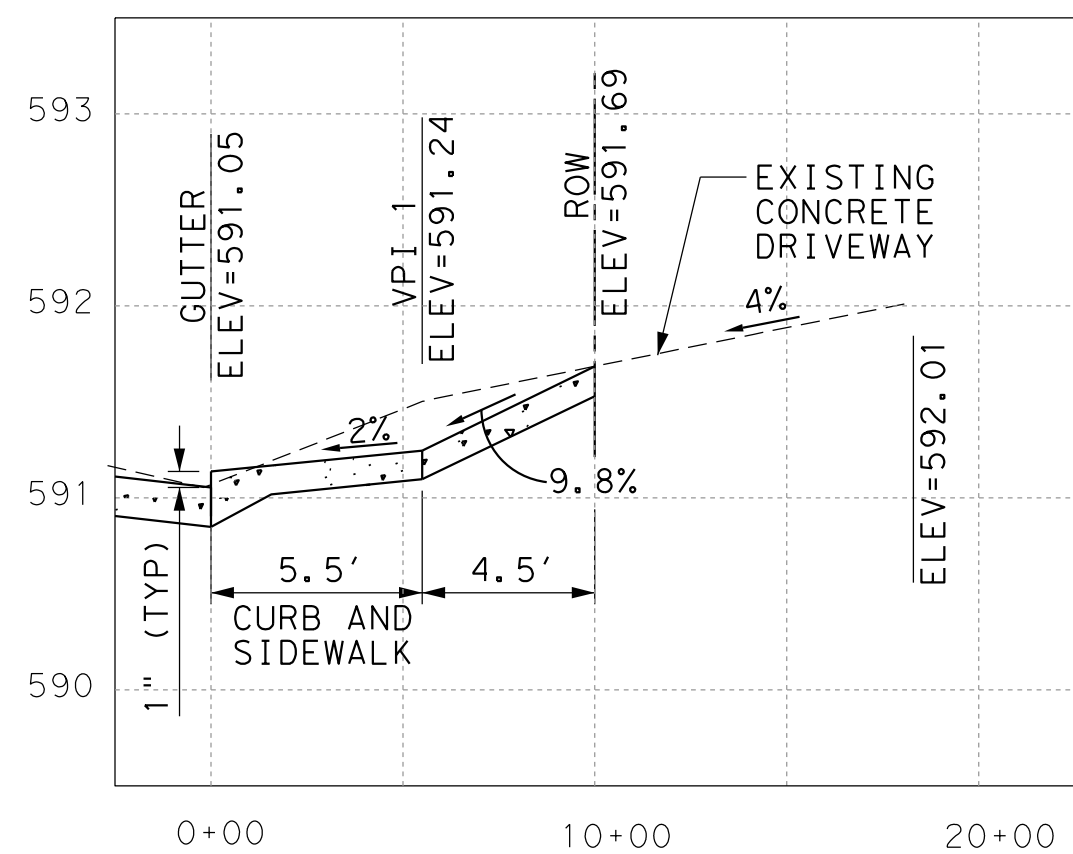
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WATERFORD DR. DRIVEWAYS



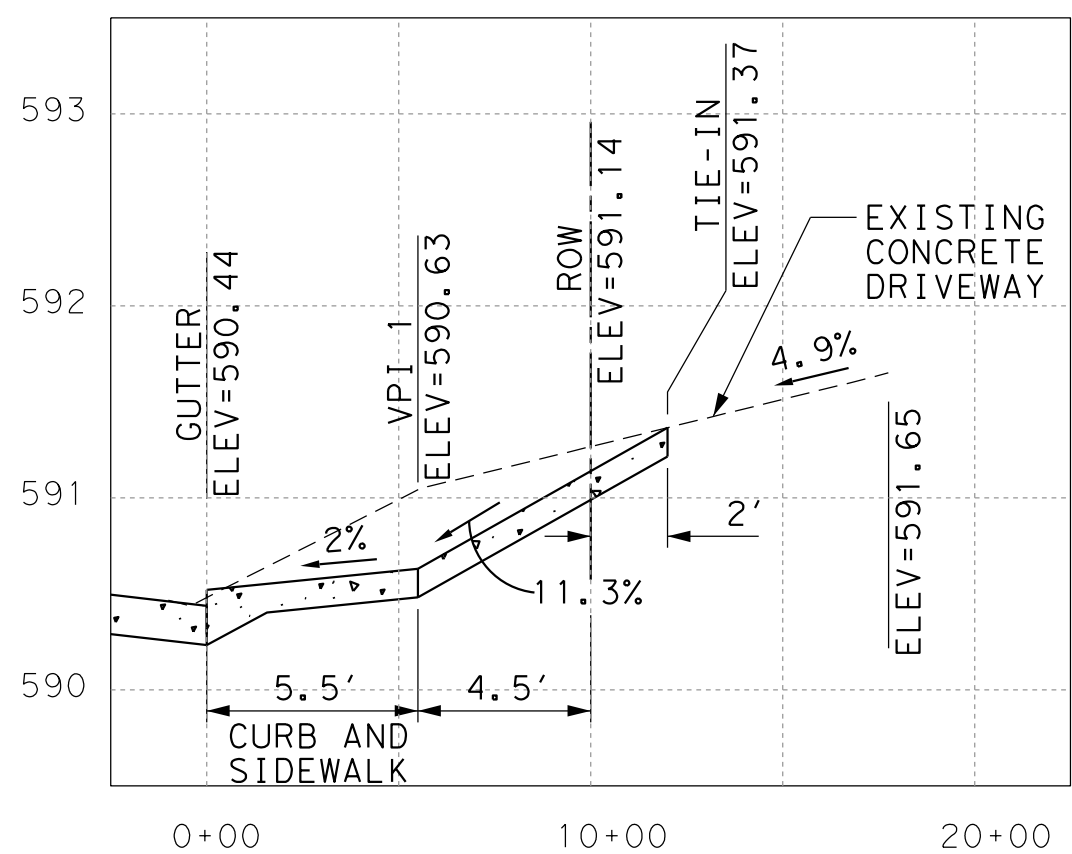
DRIVEWAY No. 1

(STA 10+62.68 SD LINE 'B', 16.5' RT)



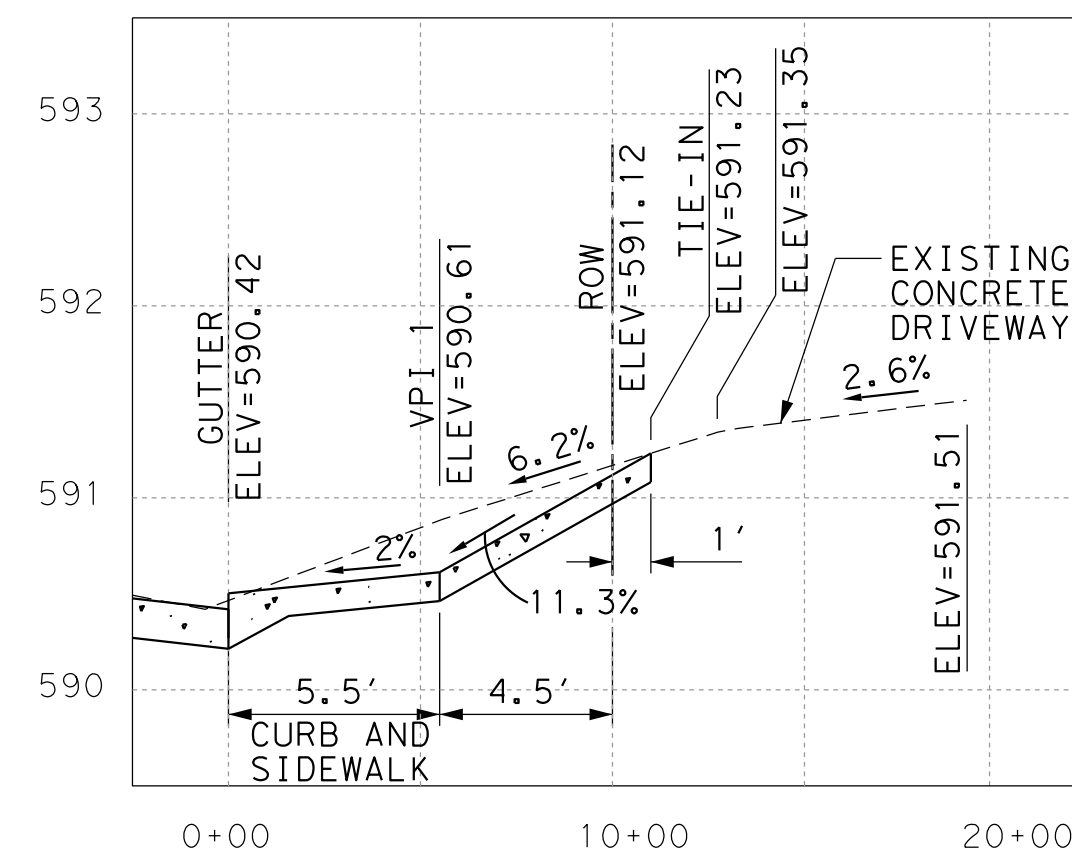
DRIVEWAY No. 2

(STA 11+19.29 SD LINE 'B', 16.5' RT)



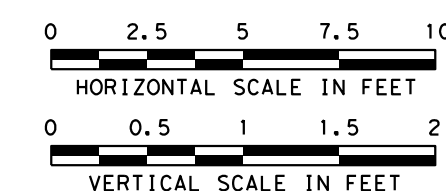
DRIVEWAY No. 3

(STA 12+23.30 SD LINE 'B', 18.5' RT)

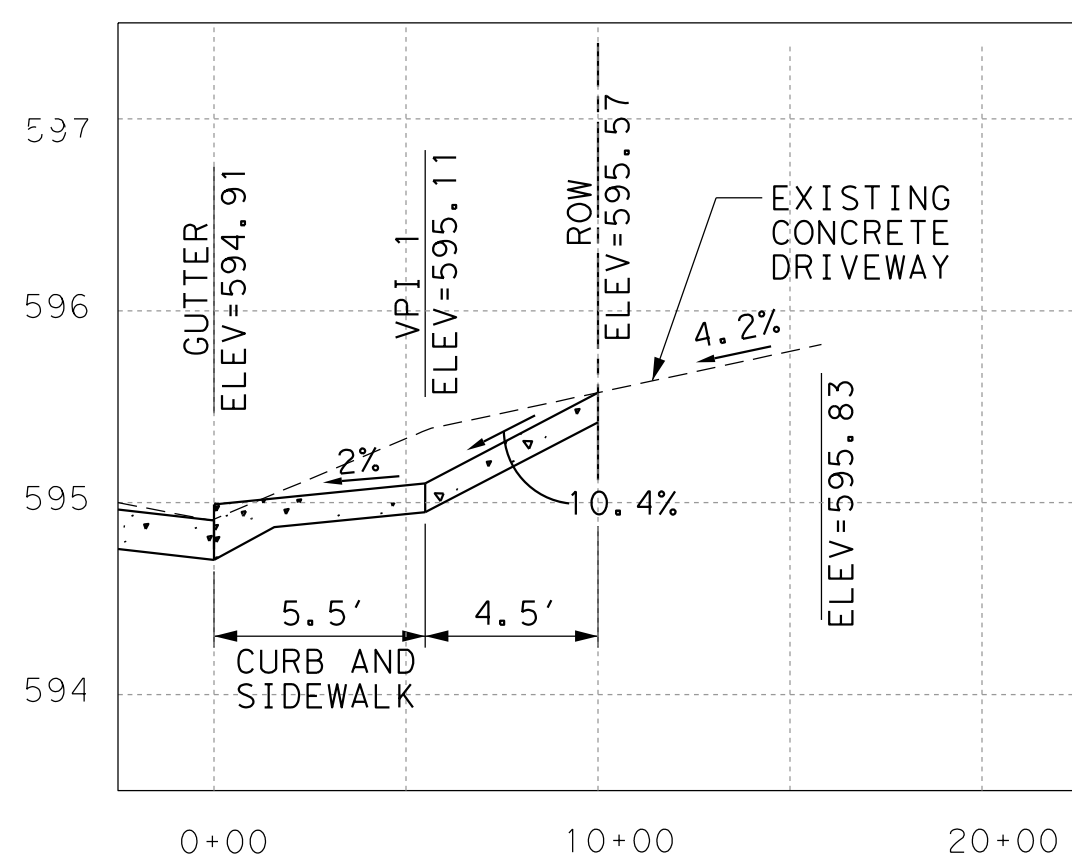


DRIVEWAY No. 4

(SEE SHEET 29 FOR LOCATION)

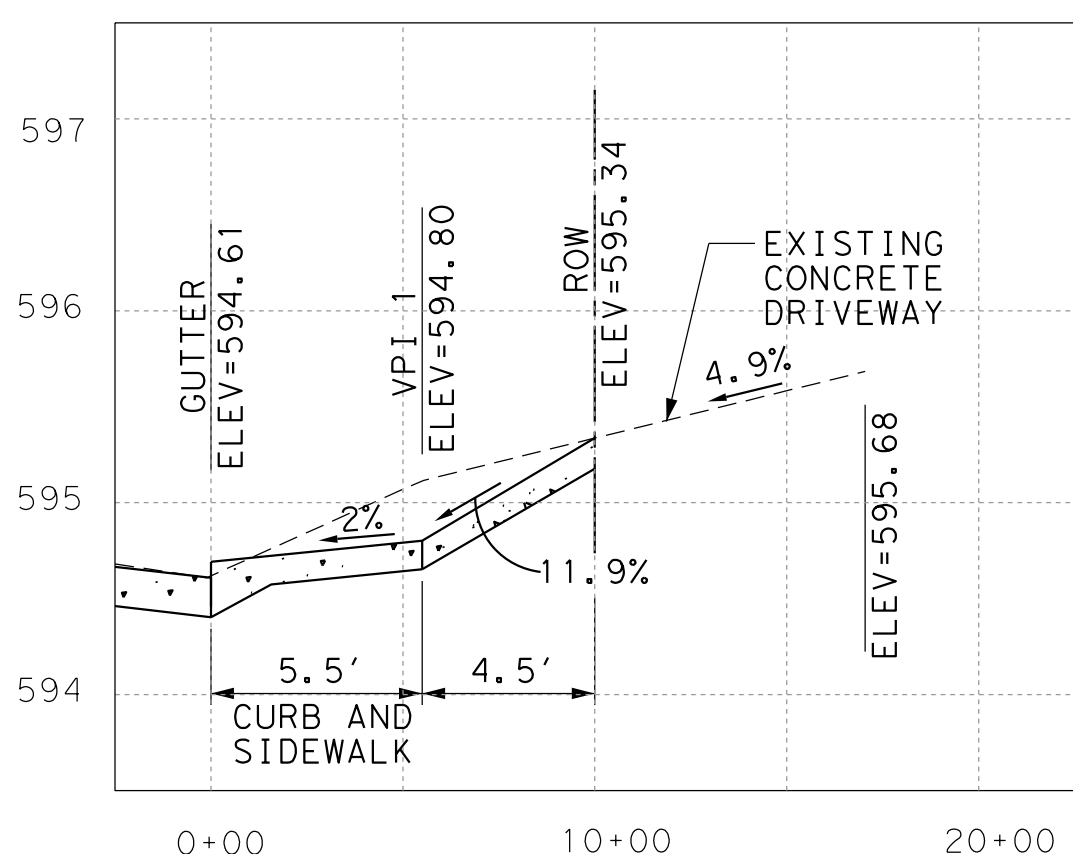


WATERSIDE CT. DRIVEWAYS



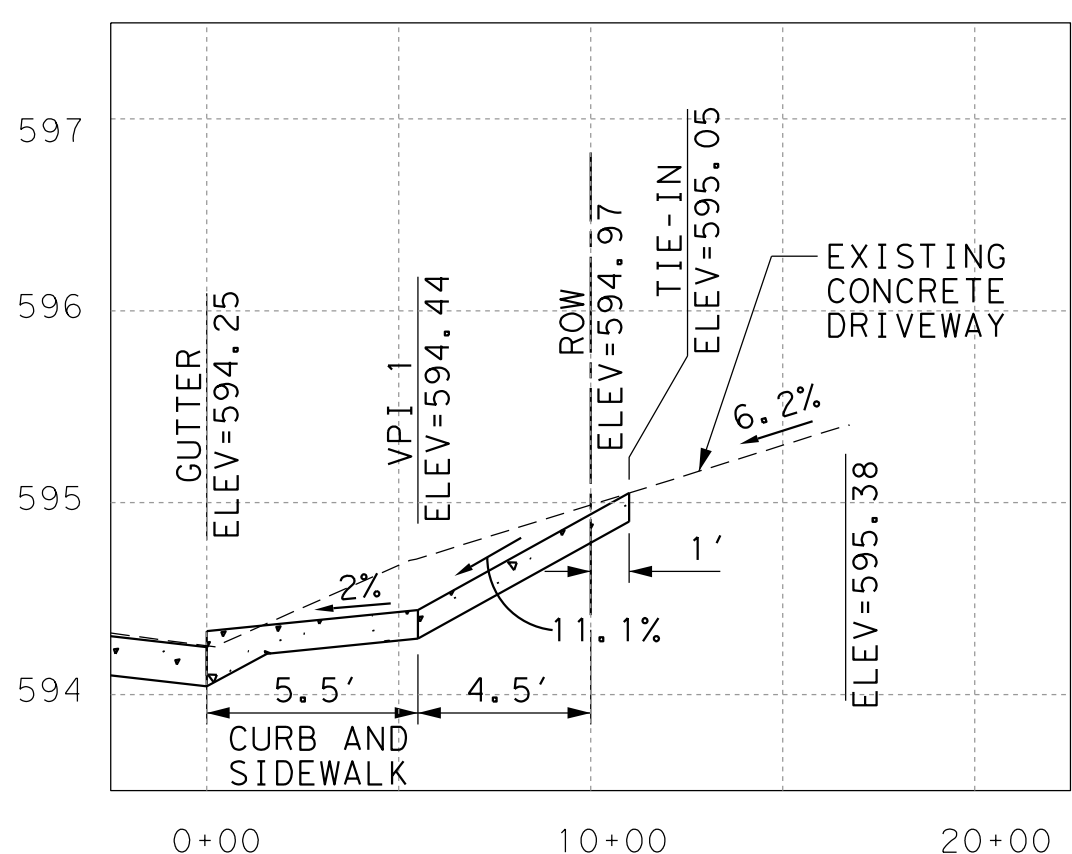
DRIVEWAY No. 5

(STA 10+65.35 SD LINE 'C', 16.5' RT)



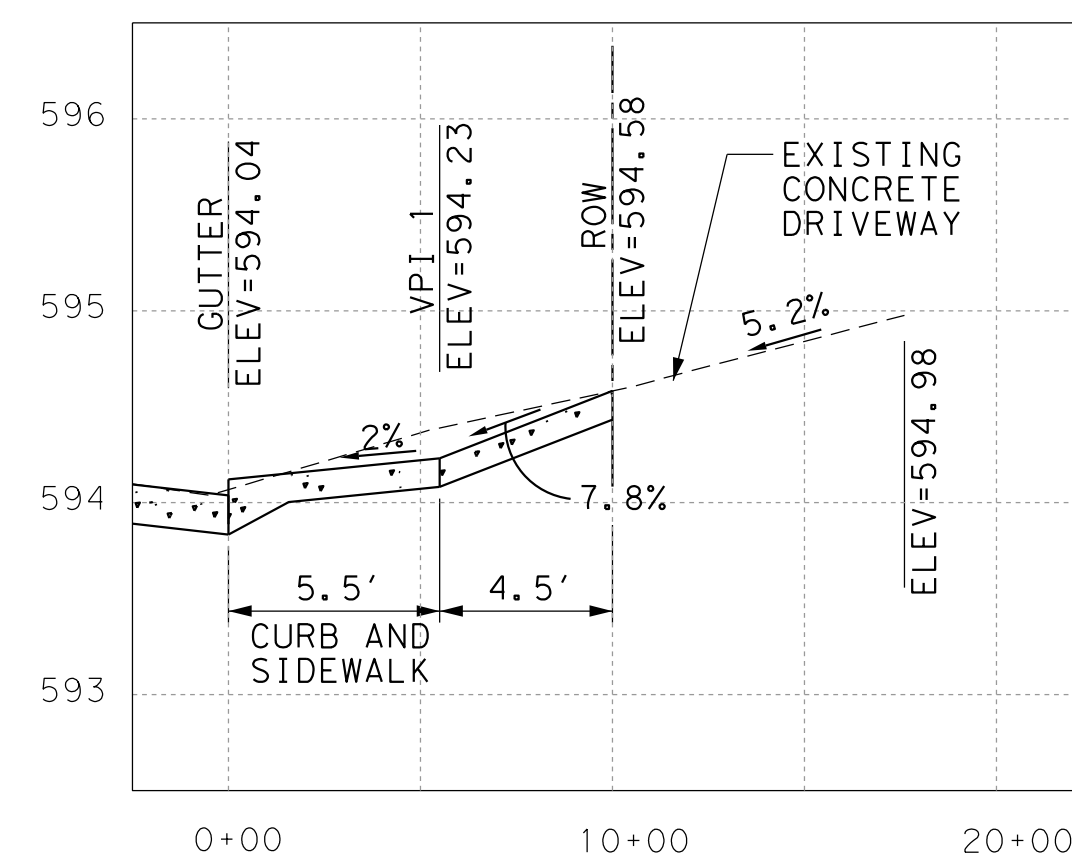
DRIVEWAY No. 6

(STA 10+95.08 SD LINE 'C', 16.5' RT)



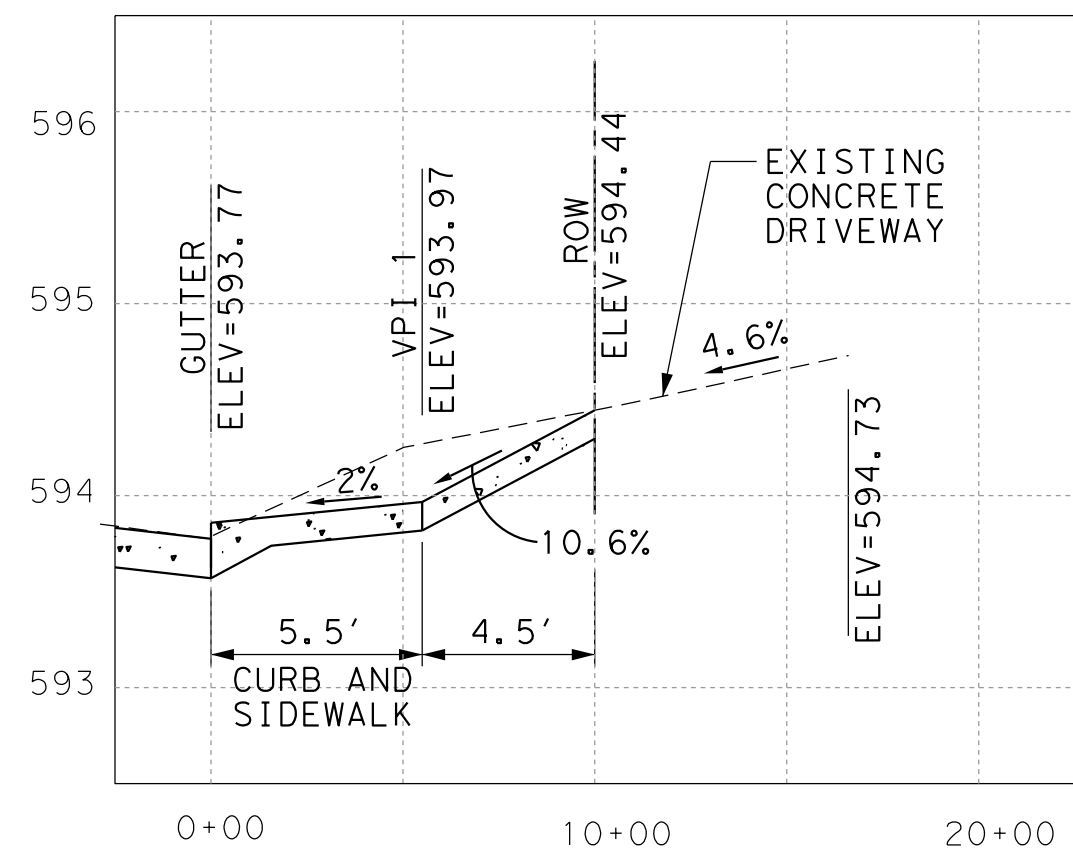
DRIVEWAY No. 7

(STA 11+65.46 SD LINE 'C', 17.5' RT)



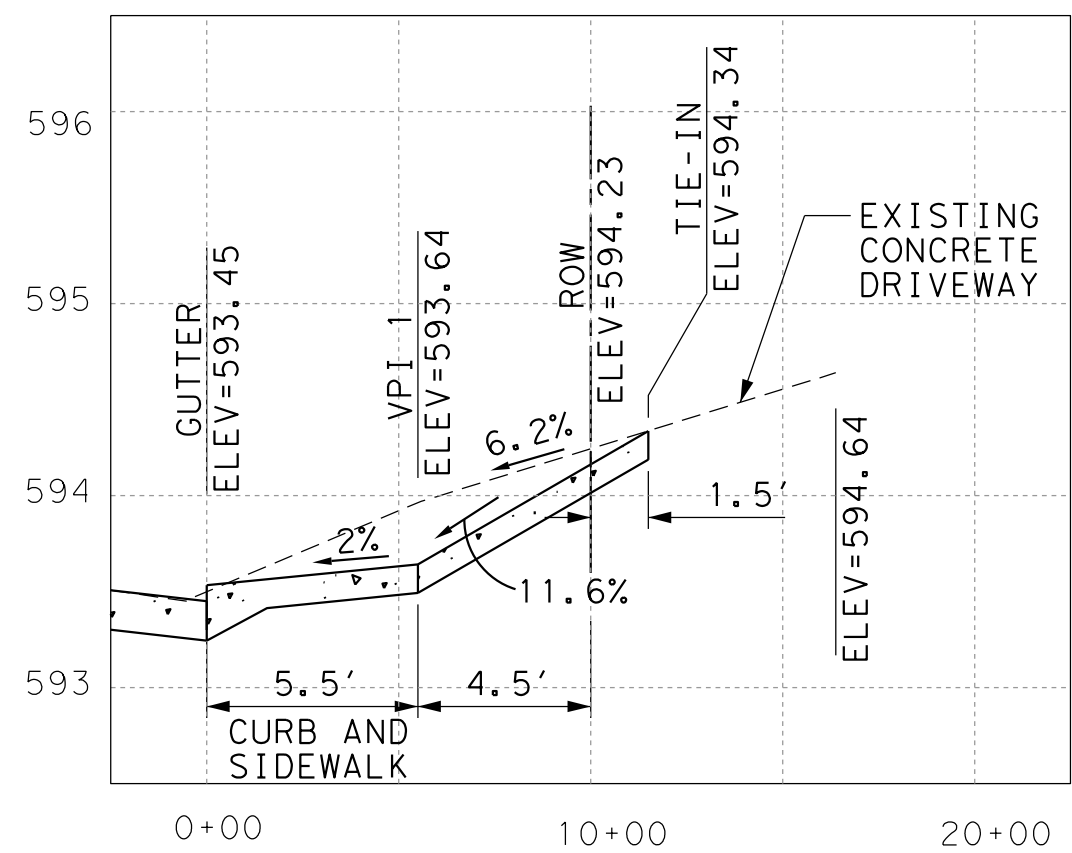
DRIVEWAY No. 8

(STA 11+95.52 SD LINE 'C', 16.5' RT)



DRIVEWAY No. 9

(STA 12+45.33 SD LINE 'C', 16.5' RT)

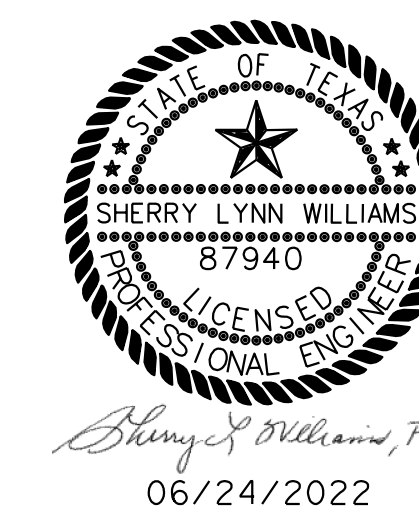


DRIVEWAY No. 10

(SEE SHEET 30 FOR LOCATION)

NOTES:

- SEE TYPICAL SECTIONS SHEET FOR DRIVEWAY TYPICAL SECTION.



REV. NO.	DATE	DESCRIPTION	BY
1			
2			

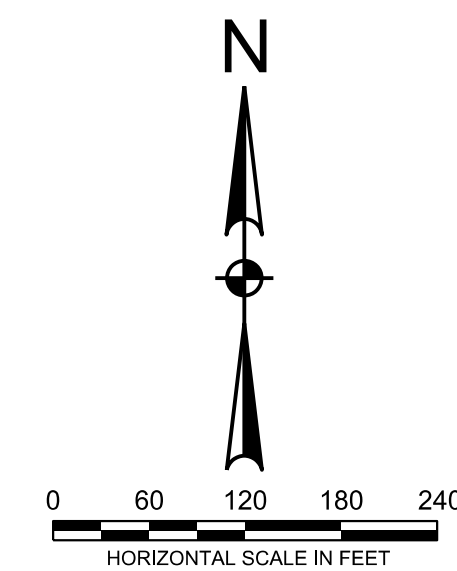


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

DRIVEWAY PROFILES
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		33

3:45:08 PM
 6/23/2022
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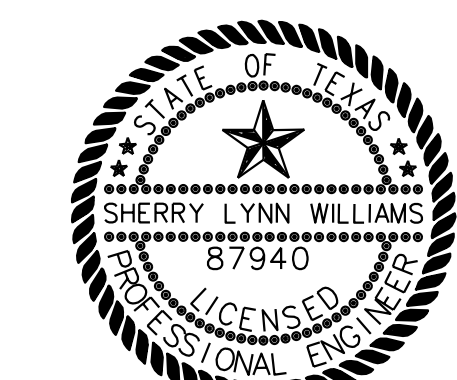


LEGEND

- MAJOR DRAINAGE DIVIDE
- FLOW DIRECTION
- EX. CONTOUR
- DESIGN POINT
- DRAINAGE AREA LABEL
AREA (ACRES)
- EXISTING STORM SEWER
- PROPOSED STORM SEWER

NOTES:

1. CONTOURS SHOWN ARE TNRIS 2010 LIDAR 2-FT CONTOURS
2. REFER TO DRAINAGE LAYOUT SHEETS FOR ADDITIONAL INFORMATION
3. SEE CALCULATIONS SHEET FOR RUNOFF CALCULATIONS



Sherry L. Williams, P.E.
06/24/2022

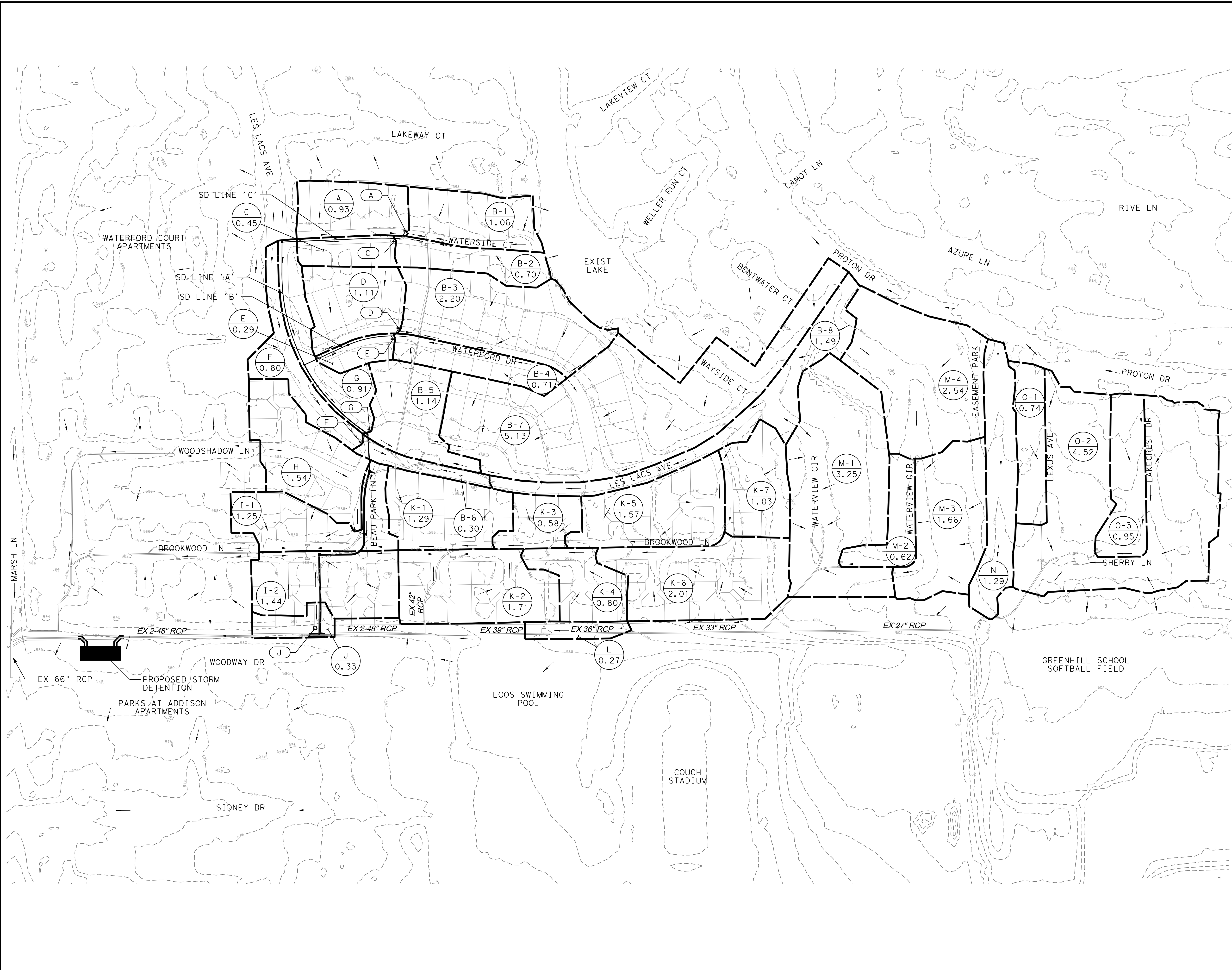
REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

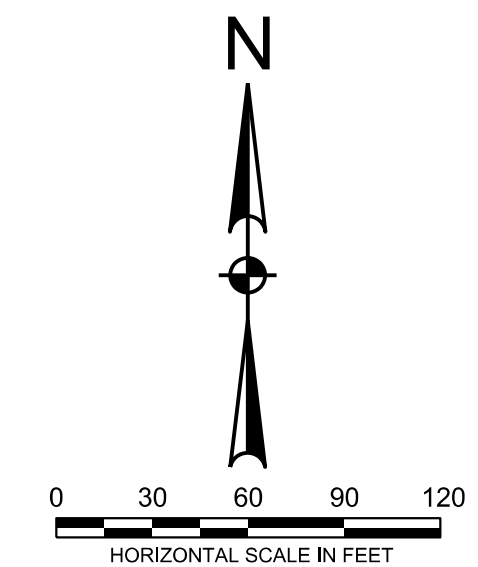
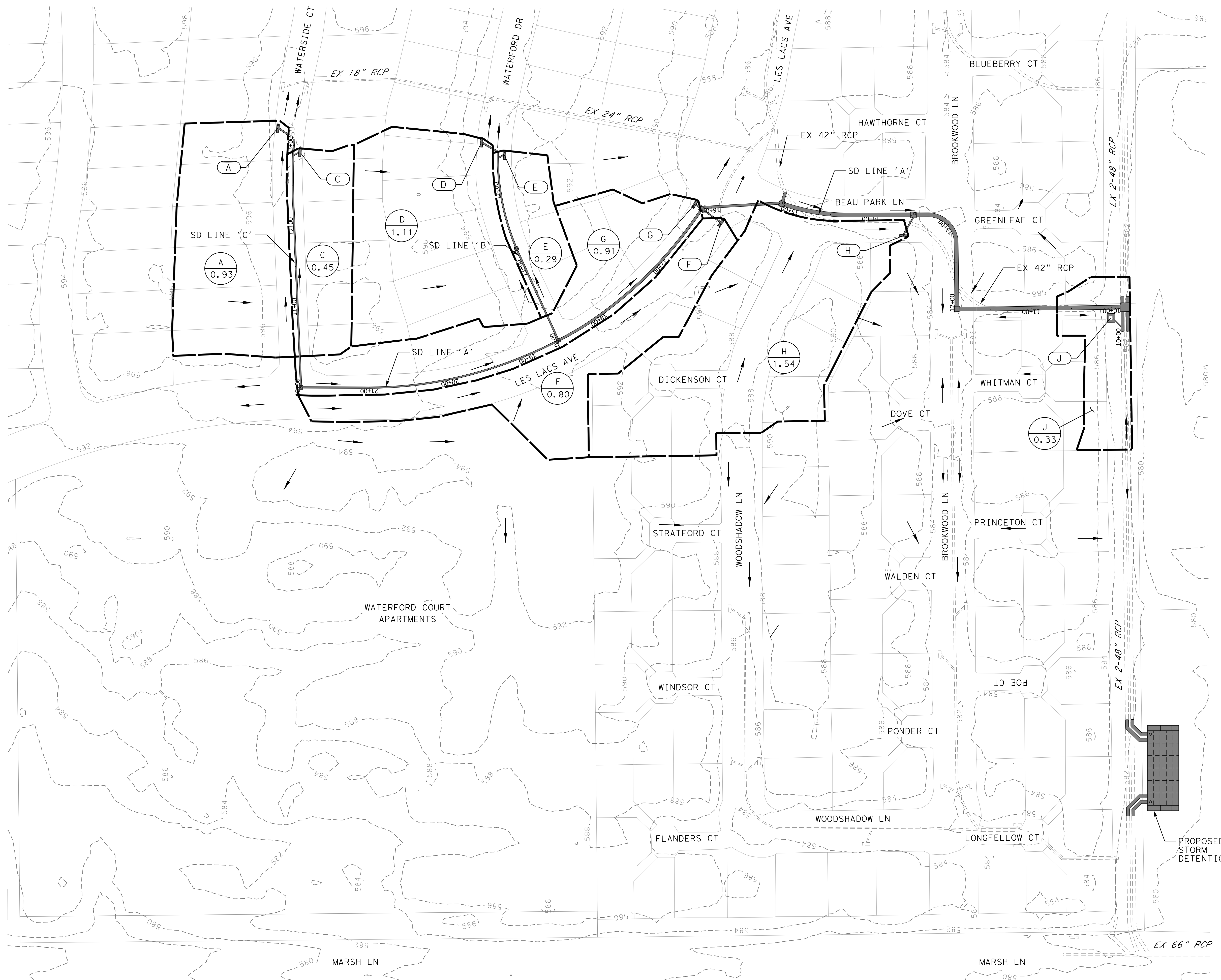
**OVERALL DRAINAGE AREA MAP
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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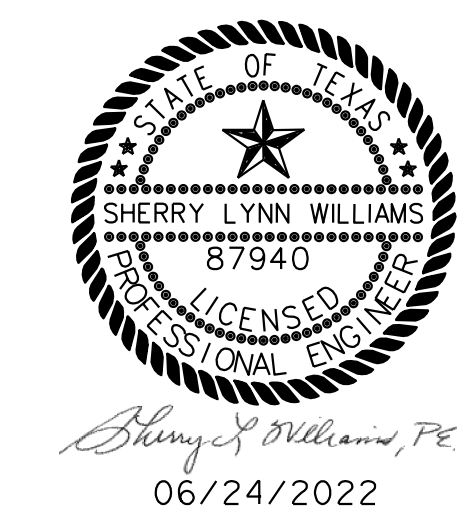


LEGEND

- MAJOR DRAINAGE DIVIDE
- FLOW DIRECTION
- EX. CONTOUR
- DESIGN POINT
- DRAINAGE AREA LABEL
AREA (ACRES)
- EXISTING STORM SEWER
- PROPOSED STORM SEWER

NOTES:

1. CONTOURS SHOWN ARE TNRS 2010 LIDAR 2-FT CONTOURS
2. REFER TO DRAINAGE LAYOUT SHEETS FOR ADDITIONAL INFORMATION
3. SEE CALCULATIONS SHEET FOR RUNOFF CALCULATIONS



REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

**ON-SITE
 DRAINAGE AREA MAP
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		35

N:\PROJECT\14799.00_Addison_Rawhide-Creek-Basin-Drainage\07_DGN\076_Sheets\076-05_Drainage\14799-DRN-DA-02.dgn

EXISTING 10-YEAR AND 100-YEAR DRAINAGE AREA CALCULATION TABLE										
DRAINAGE AREA	AREA (AC)	C	T _c	STORM	I ₁₀	Q ₁₀	STORM	I ₁₀₀	Q ₁₀₀	Comments
			(MIN)	FREQ	(IN/HR)	(CFS)	FREQ	(IN/HR)	(CFS)	
A	0.93	0.60	15.00	10	5.59	3.12	100	7.99	4.46	SINGLE FAMILY
B-1	1.06	0.60	15.00	10	5.59	3.56	100	7.99	5.08	SINGLE FAMILY
B-2	0.70	0.60	15.00	10	5.59	2.34	100	7.99	3.35	SINGLE FAMILY
B-3	2.20	0.60	15.00	10	5.59	7.38	100	7.99	10.55	SINGLE FAMILY
B-4	0.71	0.60	15.00	10	5.59	2.38	100	7.99	3.40	SINGLE FAMILY
B-5	1.14	0.66	15.00	10	5.59	4.21	100	7.99	6.01	ROW & SINGLE FAMILY
B-6	0.30	0.82	10.00	10	6.54	1.61	100	9.27	2.28	ROW
B-7	5.13	0.60	15.00	10	5.59	17.21	100	7.99	24.59	SINGLE FAMILY
B-8	1.49	0.78	15.00	10	5.59	6.49	100	7.99	9.28	ROW & SINGLE FAMILY
B	12.73	0.63	15.00	10	5.59	45.17	100	7.99	64.23	SINGLE FAMILY
C	0.45	0.60	15.00	10	5.59	1.51	100	7.99	2.16	SINGLE FAMILY
D	1.11	0.60	15.00	10	5.59	3.72	100	7.99	5.32	SINGLE FAMILY
E	0.29	0.60	15.00	10	5.59	0.98	100	7.99	1.40	SINGLE FAMILY
F	0.80	0.60	15.00	10	5.59	2.68	100	7.99	3.84	SINGLE FAMILY
G	0.91	0.60	15.00	10	5.59	3.05	100	7.99	4.36	SINGLE FAMILY
H	1.54	0.60	15.00	10	5.59	5.18	100	7.99	7.40	SINGLE FAMILY
I-1	1.25	0.60	15.00	10	5.59	4.20	100	7.99	6.00	SINGLE FAMILY
I-2	1.44	0.60	15.00	10	5.59	4.83	100	7.99	6.90	SINGLE FAMILY
I	2.69	0.60	15.00	10	5.59	9.03	100	7.99	12.90	SINGLE FAMILY
J	0.33	0.60	15.00	10	5.59	1.11	100	7.99	1.58	SINGLE FAMILY
K-1	1.29	0.60	15.00	10	5.59	4.33	100	7.99	6.18	SINGLE FAMILY
K-2	1.71	0.60	15.00	10	5.59	5.75	100	7.99	8.22	SINGLE FAMILY
K-3	0.58	0.60	15.00	10	5.59	1.95	100	7.99	2.78	SINGLE FAMILY
K-4	0.80	0.60	15.00	10	5.59	2.68	100	7.99	3.83	SINGLE FAMILY
K-5	1.57	0.60	15.00	10	5.59	5.26	100	7.99	7.51	SINGLE FAMILY
K-6	2.01	0.60	15.00	10	5.59	6.74	100	7.99	9.64	SINGLE FAMILY
K-7	1.03	0.60	15.00	10	5.59	3.44	100	7.99	4.92	SINGLE FAMILY
K	8.99	0.60	15.00	10	5.59	30.14	100	7.99	43.09	SINGLE FAMILY
L	0.27	0.40	15.00	10	5.59	0.60	100	7.99	0.86	UNDEVELOPED + SINGLE FAMILY
M-1	3.25	0.60	15.00	10	5.59	10.91	100	7.99	15.60	SINGLE FAMILY
M-2	0.62	0.60	15.00	10	5.59	2.08	100	7.99	2.97	SINGLE FAMILY
M-3	1.66	0.60	15.00	10	5.59	5.57	100	7.99	7.96	SINGLE FAMILY
M-4	2.54	0.60	15.00	10	5.59	8.53	100	7.99	12.19	SINGLE FAMILY
M	8.08	0.60	15.00	10	5.59	27.09	100	7.99	38.72	SINGLE FAMILY
N	1.29	0.60	15.00	10	5.59	4.33	100	7.99	6.18	SINGLE FAMILY
O-1	0.74	0.60	15.00	10	5.59	2.48	100	7.99	3.55	SINGLE FAMILY
O-2	4.52	0.60	15.00	10	5.59	15.16	100	7.99	21.67	SINGLE FAMILY
O-3	0.95	0.60	15.00	10	5.59	3.19	100	7.99	4.55	SINGLE FAMILY
O	6.21	0.60	15.00	10	5.59	20.83	100	7.99	29.77	SINGLE FAMILY

ON-GRADE INLET CALCULATIONS																				
INLET	LOCATION	D.A. NO.	Q CFS	CARRYOVER Q CFS	ACTUAL DISCHARGE Q+CO Q CFS	CROSS SLOPE FT/FT	MANNING'S ROUGHNESS n	GUTTER LONGITUDINAL SLOPE s FT/FT	GUTTER DEPTH OF FLOW y FT	SPREAD z*y FT	DEPTH OF DEPRESSION a FT	CAPTURE PER FOOT OF INLET WITH 100% INTERCEPTION qL CFS	REQUIRED INLET LENGTH Lr FT	ACTUAL INLET LENGTH La FT	La/Lr	a/y	ACTUAL INLET INTERCEPTION CFS	BYPASS FLOW QI-QA CFS	CARRYOVER TARGET	REMARKS
C	Line C Sta. 12+91.57, 7' RT	C	2.16	0.00	2.16	0.025	0.0175	0.005	0.25	9.86	0.33	0.54	4.01	10	2.49	1.34	2.16	0.00	B-2	PROP. 10' CURB INLET
D	Line B Sta. 12+70.50	D	5.32	0.00	5.32	0.018	0.0175	0.0058	0.30	16.51	0.33	0.59	9.08	10	1.10	1.11	5.32	0.00	B-3	PROP. 10' CURB INLET
E	Line B Sta. 12+44.42, 7' RT	E	1.40	0.00	1.40	0.027	0.0175	0.0058	0.21	7.77	0.33	0.51	2.78	10	3.60	1.57	1.40	0.00	B-4	PROP. 10' CURB INLET
F	Line A Sta. 16+12.49, 28' LT	F	3.84	0.00	3.84	0.018	0.0175	0.0165	0.22	12.00	0.33	0.51	7.51	10	1.33	1.53	3.84	0.00	B-6	PROP. 10' CURB INLET
G	Line A Sta. 16+12.57, 9.5' RT	G	4.36	0.00	4.36	0.014	0.0175	0.0165	0.21	14.73	0.33	0.50	8.68	10	1.15	1.60	4.36	0.00	B-5	PROP. 10' CURB INLET
H	Line A Sta. 13+59.77, 24.4' LT	H	7.40	0.00	7.40	0.020	0.0175	0.0124	0.30	15.16	0.33	0.59	12.49	10	0.80	1.09	6.36	1.04	I-1	PROP. 10' CURB INLET

SUMP INLET CALCULATIONS																
INLET	LOCATION	D.A. NO.	Q CFS	CARRYOVER Q CFS	ACTUAL DISCHARGE Q+CO Q CFS	CROSS SLOPE FT/FT	MANNING'S ROUGHNESS n	GUTTER LONGITUDINAL SLOPE s FT/FT	GUTTER DEPTH OF FLOW y FT	SPREAD z*y FT	DEPTH OF DEPRESSION a FT	FLOW CONTROL	CAPTURE PER FOOT OF INLET WITH 100% INTERCEPTION qL CFS	REQUIRED INLET LENGTH Lr FT	ACTUAL INLET LENGTH La FT	REMARKS
B-2	Waterside Ct	B-2	3.35	0.00	3.35	0.030	0.0175	0.005	0.31	10.36	0.33	WEIR	1.54	2.17	10	EX. 10 FT CURB INLET
B-3	Waterford Dr	B-3	10.74	0.00	10.74	0.025	0.0175	0.0075	0.42	16.67	0.33	WEIR	1.94	5.55	10	EX. 10 FT CURB INLET
B-4	Waterford Dr	B-4	3.40	0.00	3.40	0.025	0.0175	0.0075	0.27	10.83	0.33	WEIR	1.40	2.44	10	EX. 10 FT CURB INLET



REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192 FIRM NO. F-4373

RUNOFF AND INLET CALCULATIONS
 ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS

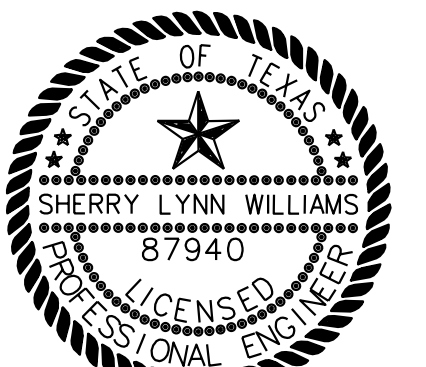
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		36

Addison Rawhide - 100-Year Frequency Hydraulic Calculations

FROM	TO	PIPE LENGTH FT	DRAINAGE AREA			RUNOFF "C"	INC. Ca	TOTAL CA	TIME OF CONCENTRATION			100-YEAR INTENSITI ES	Q ₁₀₀ RUNOFF CFS	INLET BYPASS CFS	Q PIPE CFS	COLUMN BOX WIDTH (FEET)	COLUMN BOX HEIGHT (FEET)	PIPE SIZE IN	sf ft/ft	HGL		V1 (IN) FPS	V2 (OUT) FPS	Jump Calculation (KJ*Hv)	DESIGN HGL (U/S)	INVERT ELEV.		T/C OR RIM ELEV	REMARKS	
			INCREMENTAL AREA AC	TOTAL AREA AC	INLET TIME MIN				TRAVEL TIME MIN	TOTAL TIME MIN	D/S ELEV									U/S ELEV	FROM					TO				
			NO.	AREA AC	NO.				AREA AC	NO.	AREA AC									NO.	AREA AC									
SD LINE A-1																														
18+61.64	21+84.73	323.09		A, C	1.38	1.38	0.60	0.83	0.83	17.79	2.69	20.49	7.58	6.28	0.00	6.28			24	0.0008	584.58	587.81	2.11	2.00	0.04	587.81	582.58	585.81	595.49	4'x4' SD MH - SD LINE C
18+56.00	18+61.64	5.64				1.38	0.00	0.83	0.83	20.49	0.05	20.54	7.05	5.84	0.00	5.84			24	0.0007	584.52	584.58	2.00	1.86	0.02	584.58	582.52	582.58	-	CONDUIT ON CURVE
16+12.33	18+56.00	243.67		D, E	1.40	2.78	0.60	0.84	1.67	20.54	2.44	22.97	7.05	11.78	0.00	11.78			36	0.0003	584.30	584.52	1.86	1.67	0.03	584.52	579.57	581.52	590.80	4'x4' SD MH - SD LINE B
15+11.95	16+12.33	100.38		F, G	1.71	4.49	0.60	1.03	2.70	22.97	0.65	23.62	6.74	18.18	0.00	18.18			36	0.0007	584.12	584.20	1.67	2.57	0.09	584.30	578.77	579.57	587.06	5'x5' SD MH
14+62.53	15+11.95	49.43		B	12.73	17.22	0.63	8.04	10.73	23.62	0.17	23.80	6.60	70.85	0.00	70.85	5	3		0.0019	583.71	583.81	2.57	4.72	0.32	584.12	578.62	578.77	586.65	6'x6' SD MH
13+47.38	14+62.53	115.15				17.22	0.00	10.73	23.80	0.41	24.21	6.60	70.85	0.00	70.85	5	3		0.0019	583.40	583.61	4.72	4.72	0.05	583.71	578.28	578.62	-	CONDUIT ON CURVE	
13+01.73	13+47.38	45.66		H	1.54	18.76	0.60	0.93	11.66	24.21	0.15	24.36	6.46	75.38	1.04	74.35	5	3		0.0020	583.15	583.25	4.72	4.96	0.15	583.40	578.14	578.28	584.33	6'x6' SD MH
11+92.18	13+01.73	109.55				18.76	0.00	11.66	24.36	0.37	24.73	6.46	75.38	0.00	74.35	5	3		0.0020	582.74	582.96	4.96	4.96	0.19	583.15	577.81	578.14	-	CONDUIT ON CURVE	
9+89.53	11+92.18	202.65				18.76	0.00	11.66	24.73	0.68	25.41	6.46	75.38	0.00	74.35	5	3		0.0020	582.06	582.47	4.96	4.96	0.27	582.74	577.30	577.81	583.38	6'x6' SD MH	
SD LINE X-1 - SOUTH																														
10+30.00	10+43.00	13.00		L,M,N,O	15.85	15.85	0.60	9.45	9.45	19.37	0.04	19.41	7.22	68.23	0.00	68.23			48	0.0023	582.06	582.09	5.48	5.43	0.00	582.09	577.20	577.24	-	CONNECT TO EX LINE
10+00.00	10+30.00	30.00		SD LINE A	5.95	21.80	0.62	3.70	13.25	25.41	0.07	25.48	6.34	83.96	0.00	83.96			48	0.0034	581.11	581.21	5.43	6.68	0.56	582.06	577.11	577.20	583.27	JUNCTION BOX
SD LINE X-2 - NORTH																														
10+30.00	10+43.00	13.00		K	8.99	8.99	0.60	5.39	5.39	19.98	0.07	20.05	7.22	38.92	0.00	38.92			48	0.0007	582.06	582.07	3.01	3.10	0.00	582.07	577.20	577.24	-	CONNECT TO EX LINE
10+04.26	10+30.00	25.74		SD LINE A	12.81	21.80	0.62	7.96	13.25	25.41	0.06	25.47	6.34	83.96	0.00	83.96			48	0.0034	581.32	581.41	3.10	6.68	0.65	582.06	577.12	577.20	583.27	JUNCTION BOX
10+00.00	10+04.26	4.26		J	0.33	22.13	0.60	0.20	13.45	25.47	0.01	25.48	6.34	85.22	0.00	85.22			48	0.0035	581.11	581.13	6.68	6.78	0.19	581.32	577.11	577.12	-	45 DEG WYE
SD LINE B																														
12+48.35	12+70.50	22.15		D	1.11	1.11	0.60	0.67	0.67	15.00	0.22	15.22	7.99	5.32	0.00	5.32			24	0.0006	587.53	587.95	0.00	1.69	0.06	587.95	585.53	585.95	590.95	INLET D
12+40.23	12+48.35	8.12				1.11	0.00	0.67	15.22	0.08	15.30	7.99	5.32	0.00	5.32			24	0.0006	587.51	587.53	1.69	1.69	0.02	587.53	585.51	585.53	-	60D BEND	
11+79.14	12+40.23	61.09		E	0.29	1.40	0.60	0.18	0.84	15.30	0.48	15.77	7.99	6.72	0.00	6.72			24	0.0009	587.32	587.51	1.69	2.14	0.05	587.51	585.32	585.51	-	60D WYE, LAT 'B-1'
11+25.00	11+79.14	54.14				1.40	0.00	0.84	15.77	0.42	16.20	7.99	6.72	0.00	6.72			24	0.0009	587.16	587.32	2.14	2.14	0.01	587.32	585.16	585.32	-	CONDUIT ON CURVE	
10+00.00	11+25.00	125.00				1.40	0.00	0.84	16.20	1.00	17.20	7.78	6.55	0.00	6.55			24	0.0008	584.52	585.16	2.14	2.08	0.10	585.16	582.02	583.16	591.29	4x4' SD MH	
SD LINE C																														
13+08.55	13+31.54	22.99		A	0.93	0.93	0.60	0.56	0.56	15.00	0.27	15.27	7.99	4.46	0.00	4.46			24	0.0004	589.35	590.80	0.00	1.42	0.04	590.80	587.35	588.80	593.80	INLET A
12+87.61	13+08.55	20.94				0.93	0.00	0.56	15.27	0.25	15.52	7.99	4.46	0.00	4.46			24	0.0004	589.25	589.35	1.42	1.42	0.01	589.35	587.25	587.35	-	60D BEND	
12+69.39	12+87.61	18.22		C	0.45	1.38	0.60	0.27	0.83	15.52	0.14	15.66	7.99	6.62	0.00	6.62			24	0.0009	589.16	589.25	1.42	2.11	0.06	589.25	587.16	587.25	-	60D WYE, LAT 'C-1'
10+00.00	12+69.39	269.39				1.38	0.00	0.83	15.66	2.13	17.79	7.99	6.62	0.00	6.62			24	0.0009	587.81	589.16	2.11	2.11	0.00	589.16	585.81	587.16	-	CONDUIT ON CURVE	
LAT X-1																														
10+00.00	10+17.47	17.47		J	0.33	0.33	0.60	0.20	0.20	15.00	0.33	15.33	7.99	1.58	0.00	1.58			18	0.0002	581.32	581.32	0.00	0.89	0.02	581.42	578.37	578.80	582.30	INLET X
LAT A-1																														
10+00.00	10+28.17	28.17		H	1.54	1.54	0.60	0.93	0.93	15.00	0.13	15.13	7.99	7.39	1.04	6.36			18	0.0037	583.40	583.50	0.00	3.60	0.25	583.75	579.03	579.52	584.52	INLET A-1
LAT A-2																														
10+00.00	10+15.20	15.20		B	12.73	12.73	0.63	8.04	8.04	17.10	0.04	17.14	7.58	60.93	0.00	60.93			42	0.0037	584.12	584.18	0.00	6.33	0.22	584.39	578.77	578.85	586.82	45D BEND - CONNECT TO EX 42"
LAT A-3																														
10+00.00	10+27.86	27.86		F	0.80	0.80	0.60	0.48	0.48	15.00	0.21	15.21	7.99	3.84		3.84			18	0.0013	584.30	584.33	0.00	2.17	0.09	584.43	580.32	582.57	587.57	INLET A-3
LAT A-4																														
10+00.00	10+09.47	9.47		G	0.91	0.91	0.60	0.55	0.55	15.00	0.06	15.06	7.99	4.36		4.36			18	0.0017	584.30	584.31	0.00	2.47	0.12	584.43	580.32	582.55	587.55	INLET A-4
LAT B-1																														
10+00.00	10+08.21	8.21		E	0.29	0.29	0.60	0.18	0.18	15.00	0.17	15.17	7.99	1.40		1.40			18	0.0002	587.51	587.87	0.00	0.79	0.01	587.87	585.76	586.37	590.87	INLET B-1
LAT C-1																														
10+00.00	10+08.16	8.16		C	0.45	0.45	0.60	0.27	0.27	15.00	0.11	15.11	7.99	2.16		2.16			18	0.0004	589.25	590.44	0.00	1.22	0.03	590.44	587.50	588.94	593.94	INLET C-1

NOTE:

Q₁₀₀ EXISTING IS 163.34 CFS PER STUDY AND ASSESSMENT CONDUCTED BY HALFF, DATED AUGUST 2017.
 Q₁₀₀ PROPOSED IS 154.62 CFS AT THE DOWNSTREAM NODE OF SYSTEM IMPROVEMENTS AS MODELED IN HYDRAFLOW HYDROGRAPHS VERSION 2020.



Sherry Lynn Williams, P.E.
06/24/2022

REV. NO.	DATE	DESCRIPTION	BY
1			
2			

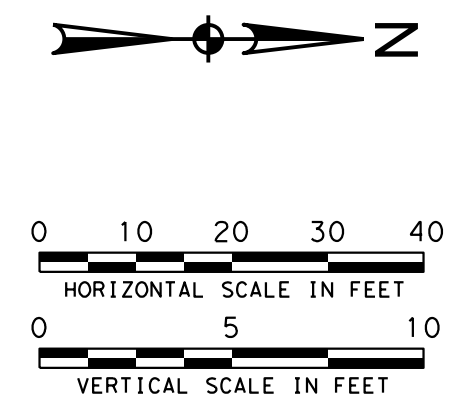
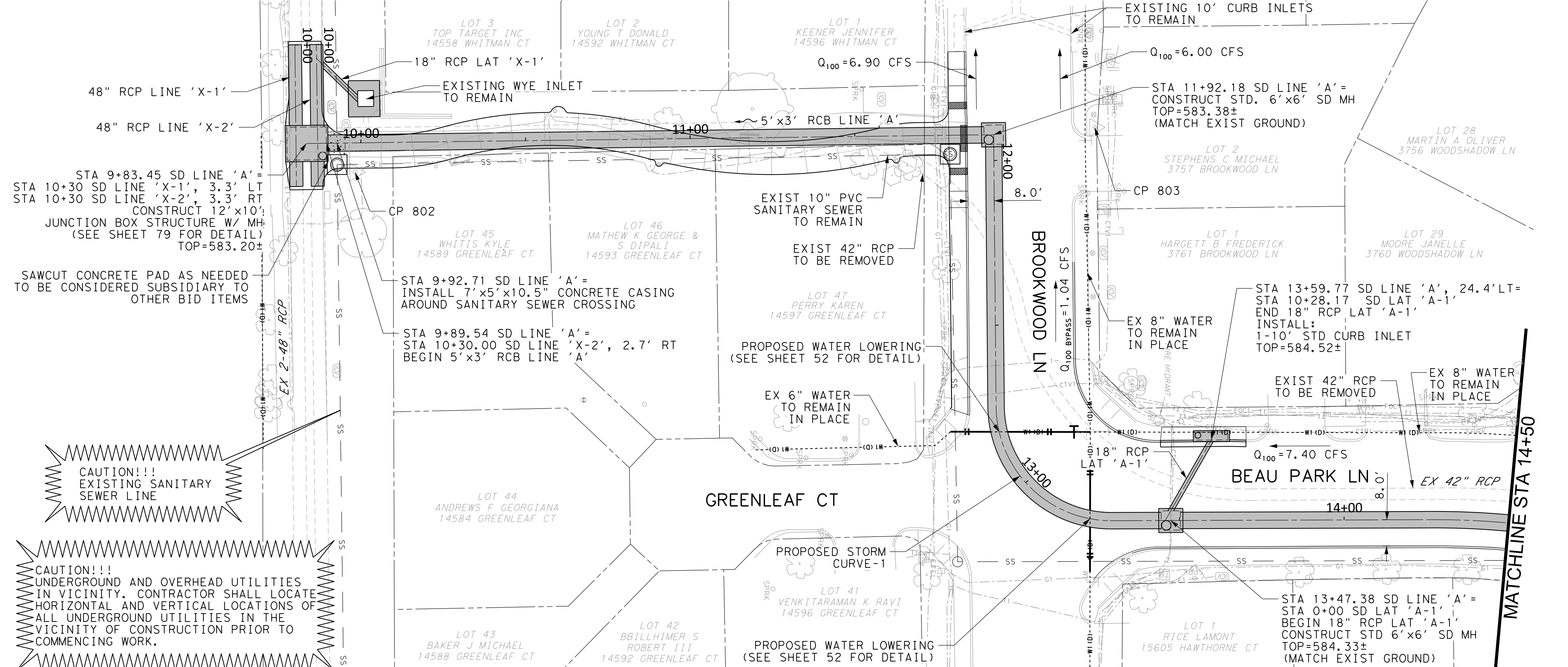


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
Civil Engineering | Land Surveying | Subsurface Utility Engineering | ROW | CE&I
 FIRM NO. F-4373

HYDRAULIC CALCULATIONS
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		37

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LEGEND

	PROPOSED STORM DRAIN
	PROPOSED INLET
	PROPOSED MANHOLE
	EXISTING STORM DRAIN
	EXISTING INLET
	EXISTING SANITARY SEWER

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 - EXISTING STORM DRAIN PIPES ARE SHOWN PER RECORD DRAWINGS FOR DEVELOPMENT PLANS FOR GRAND ADDISON II AND III AND WATERFORD PARK II

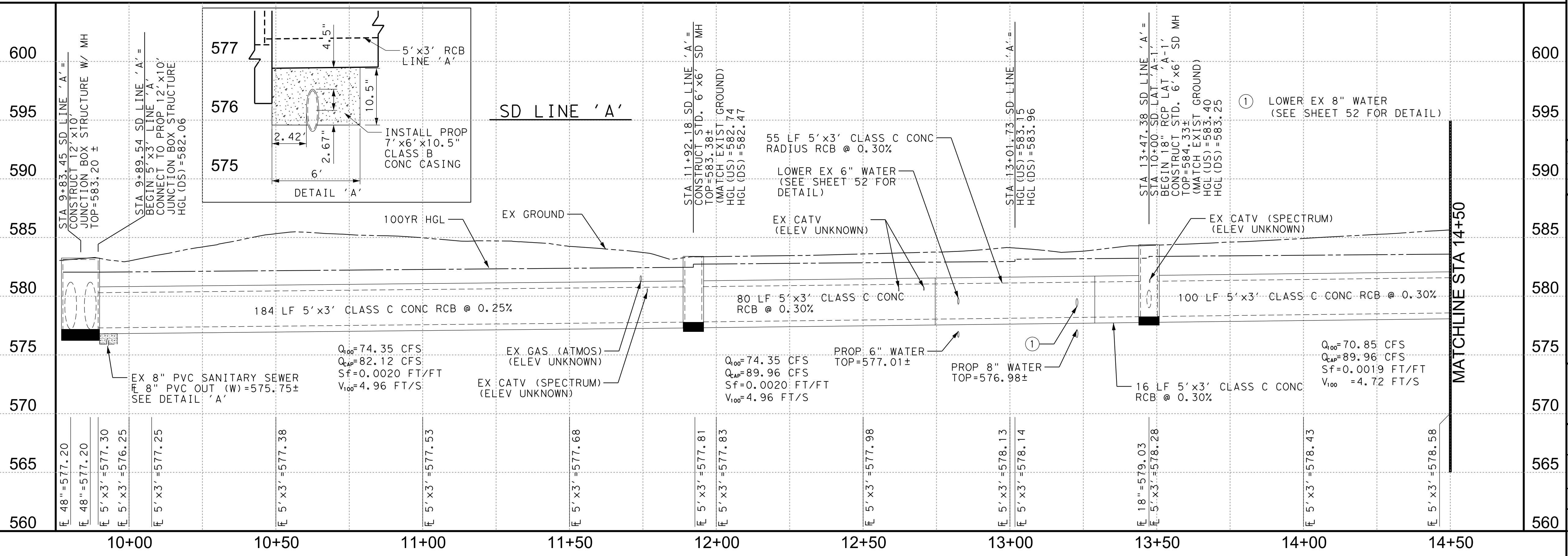
ADDISON RAWHIDE PROPOSED STORM - CURVE DATA

CURVE	PI STATION	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	PC STATION	PT STATION
PROPOSED STORM CURVE-1	13+08.92	88° 55' 58.35" (LT)	163° 42' 08.02"	34.35'	54.35'	35.00'	12+74.56	13+28.89

BENCHMARKS & CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 803	7030438.75	2473682.69	584.48	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"

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REV NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

DRAINAGE PLAN & PROFILE
SD LINE 'A' BEGIN TO STA 14+50
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

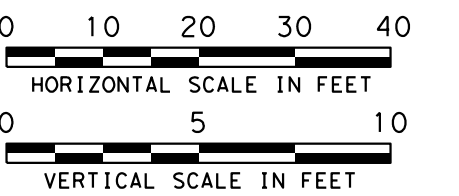
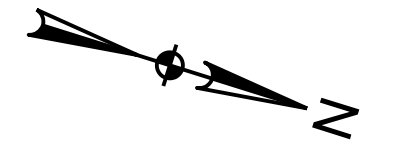
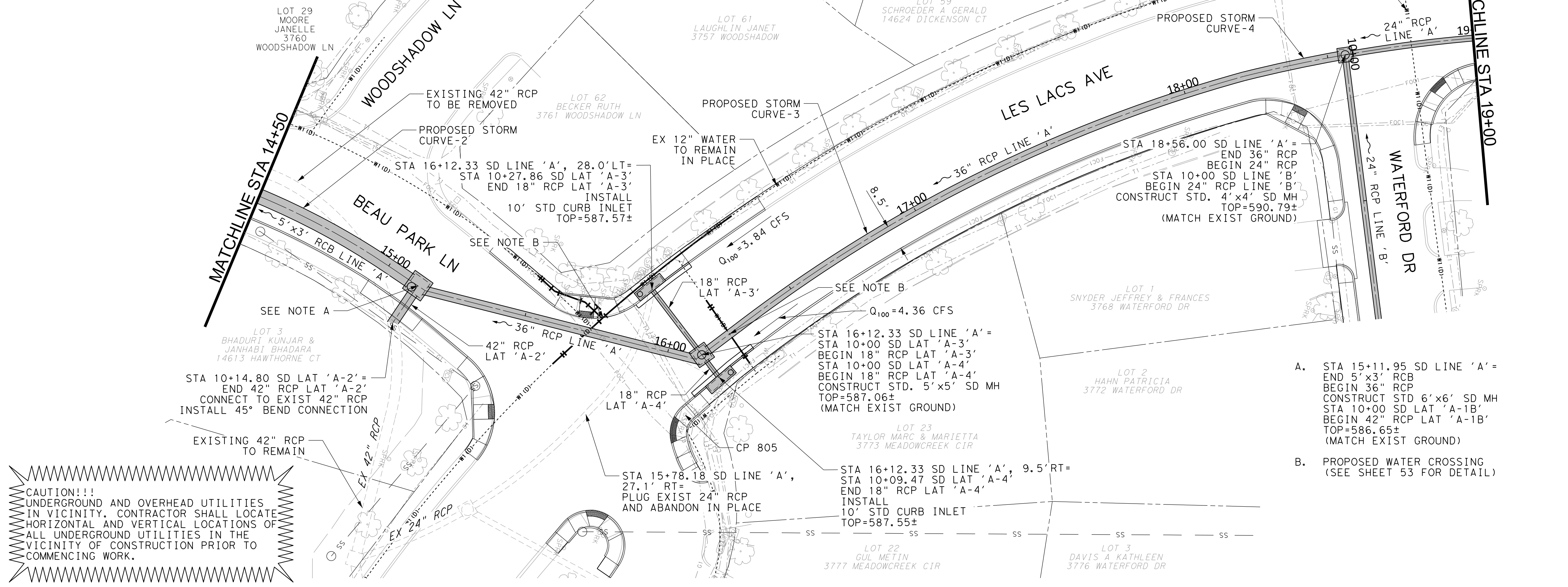
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		38

ADDISON RAWHIDE PROPOSED STORM - CURVE DATA

CURVE	PI STATION	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	PC STATION	PT STATION
PROPOSED STORM CURVE-2	14+62.80	17° 00' 32.02" (RT)	22° 55' 05.92"	37.38'	74.22'	250.00'	14+25.42	14+99.63
PROPOSED STORM CURVE-3	17+25.58	22° 07' 43.53" (RT)	11° 27' 32.96"	97.77'	193.11'	500.00'	16+27.81	18+20.92
PROPOSED STORM CURVE-4	18+61.80	9° 20' 48.39" (RT)	11° 27' 32.96"	40.87'	81.57'	500.00'	18+20.92	19+02.49

BENCHMARKS & CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 805	7030724.60	2473830.14	587.57	MAGNAIL SET WITH SHINER STAMPED "CRIADO"

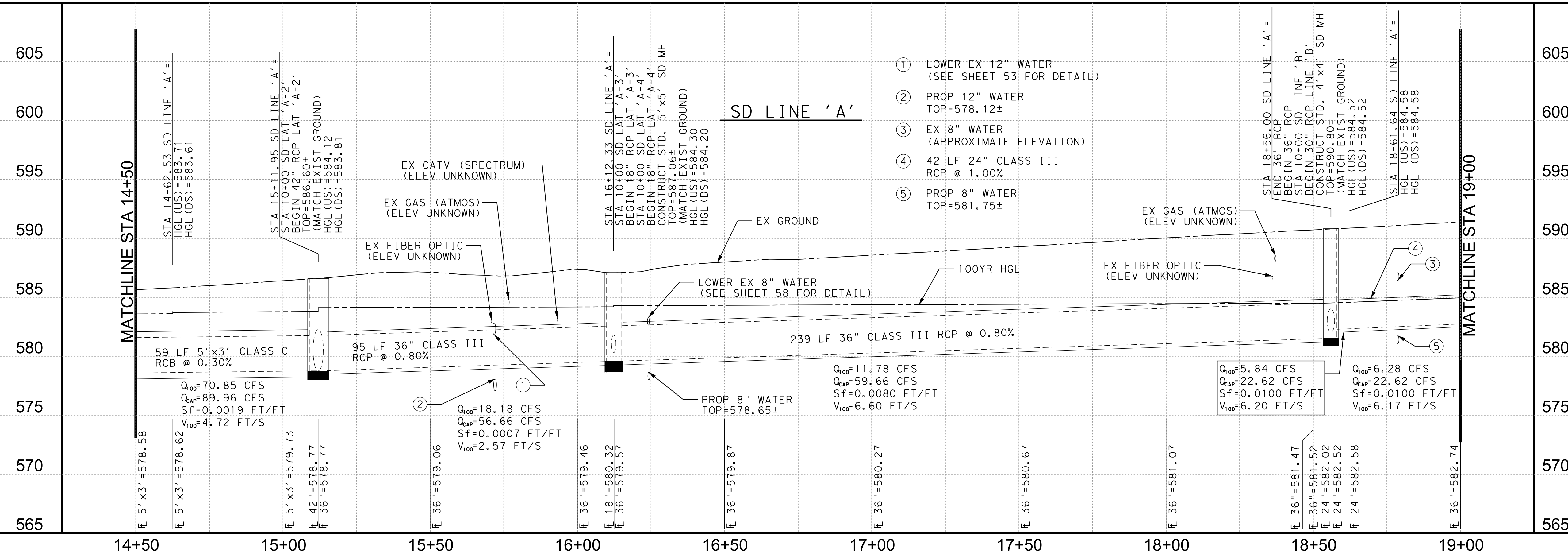
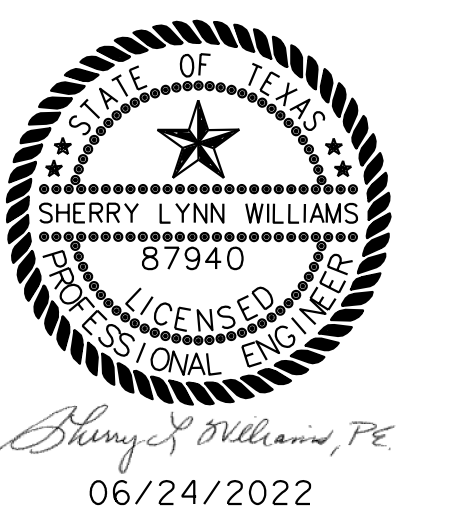


LEGEND

	PROPOSED STORM DRAIN
	PROPOSED INLET
	PROPOSED MANHOLE
	EXISTING STORM DRAIN
	EXISTING INLET
	EXISTING SANITARY SEWER

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CAUTION!!! UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.



REV NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001 DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

DRAINAGE PLAN & PROFILE
SD LINE 'A' STA 14+50 TO STA 19+00
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		39

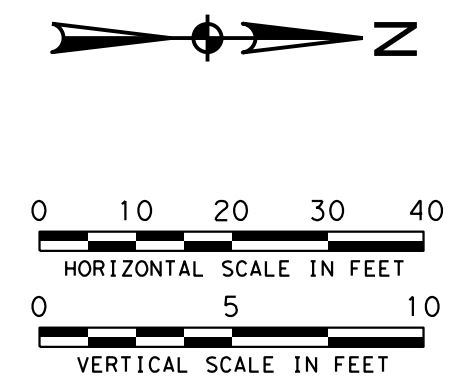
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CAUTION!!!
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IN VICINITY. CONTRACTOR SHALL LOCATE
HORIZONTAL AND VERTICAL LOCATIONS OF
ALL UNDERGROUND UTILITIES IN THE
VICINITY OF CONSTRUCTION PRIOR TO
COMMENCING WORK.

LOT 1
WATERFORD COURT
APARTMENTS

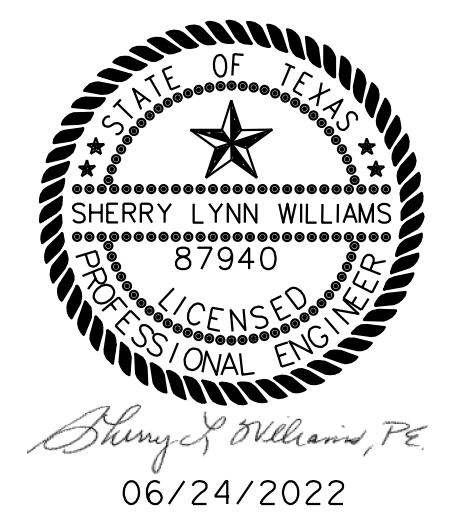
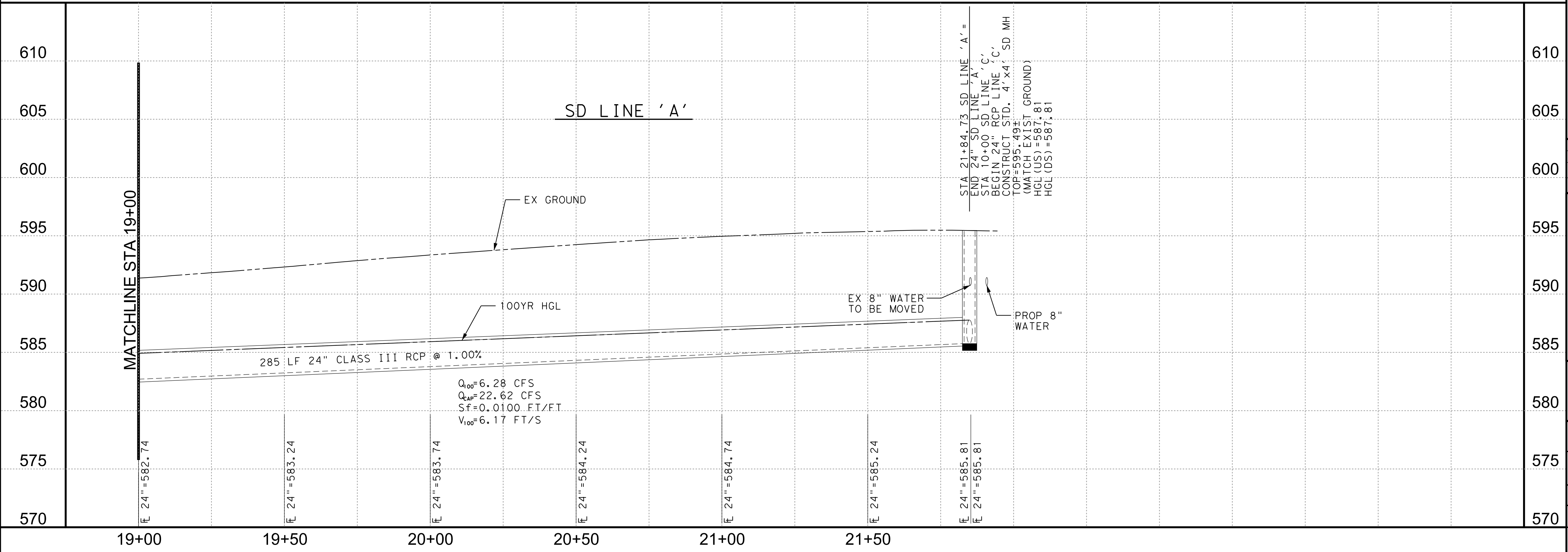
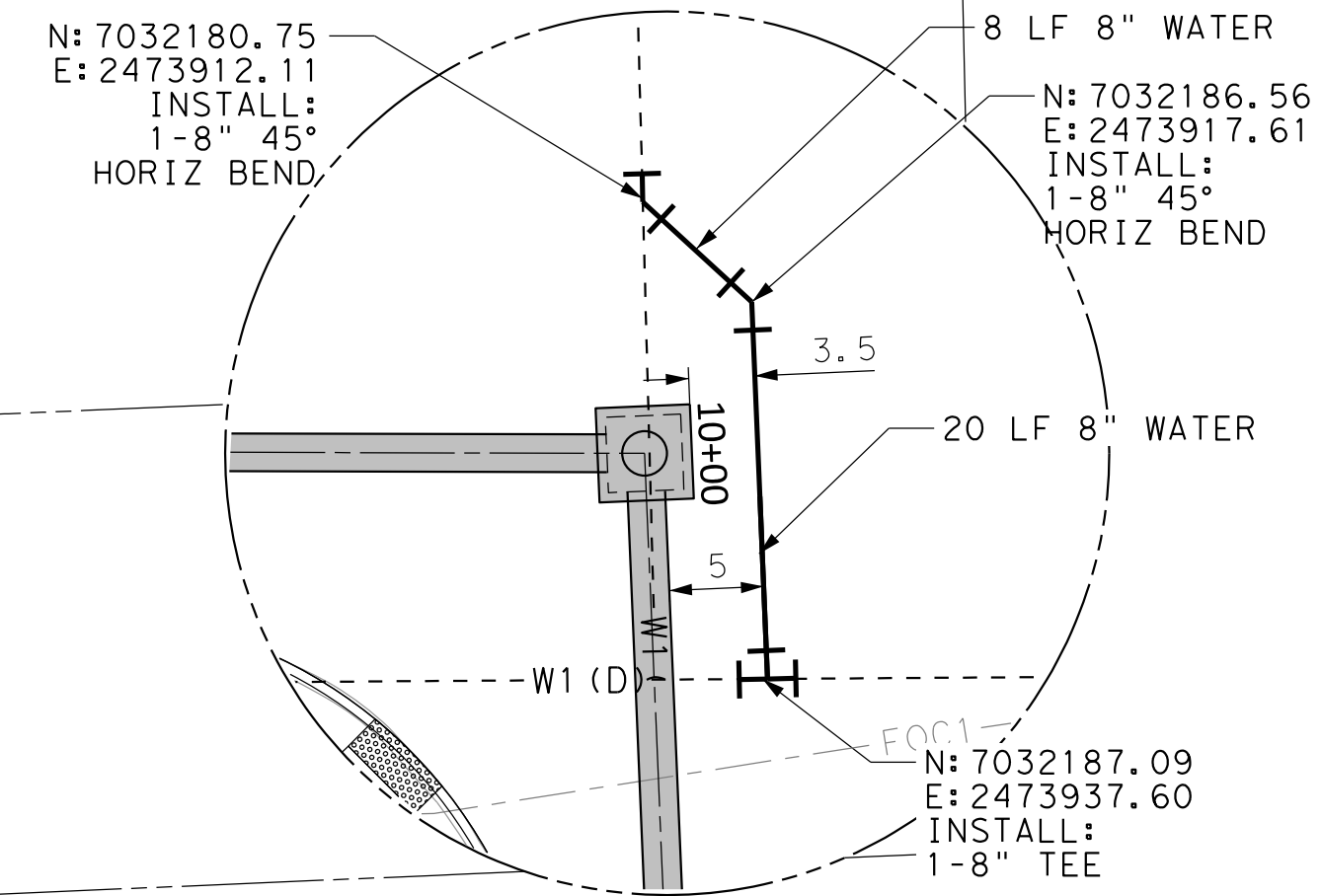
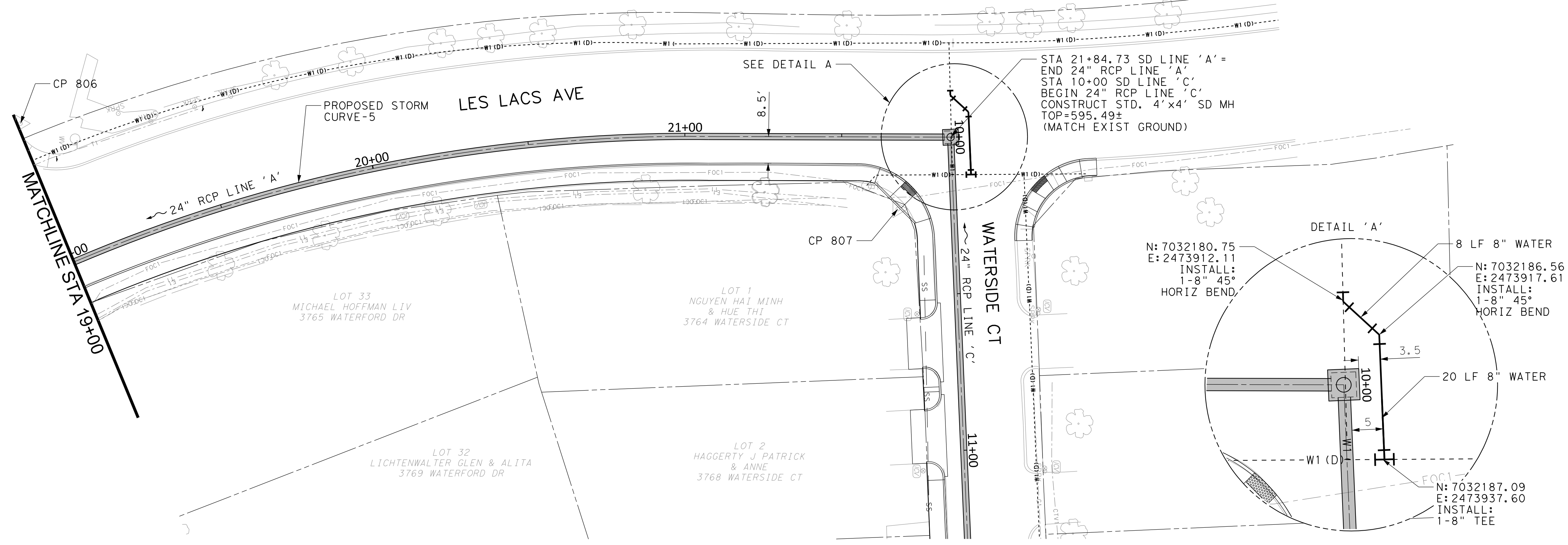
ADDISON RAWHIDE PROPOSED STORM - CURVE DATA									
CURVE	PI STATION	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	PC STATION	PT STATION	
PROPOSED STORM CURVE-5	20+06.55	23° 30' 46.50" (RT)	11° 27' 32.96"	104.06'	205.19'	500.00'	19+02.49	21+07.68	

BENCHMARKS & CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 806	7030924.57	2473583.64	592.49	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
CP 807	7031204.22	2473610.95	595.97	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"



- LEGEND**
- PROPOSED STORM DRAIN
 - PROPOSED INLET
 - PROPOSED MANHOLE
 - EXISTING STORM DRAIN
 - EXISTING INLET
 - EXISTING SANITARY SEWER

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REV NO.	DATE	DESCRIPTION	BY
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2			



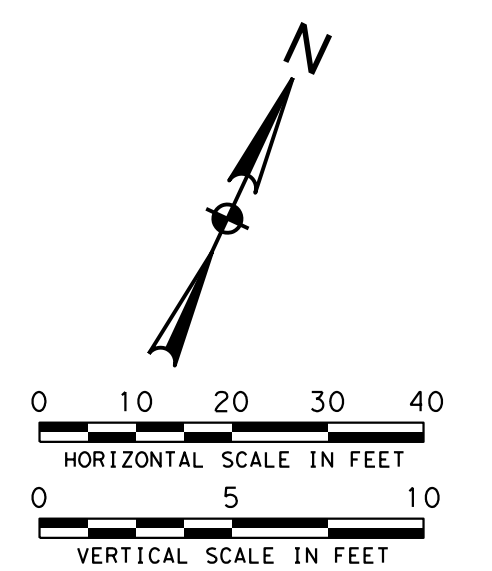
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

DRAINAGE PLAN & PROFILE
SD LINE 'A' STA 19+00 TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		40

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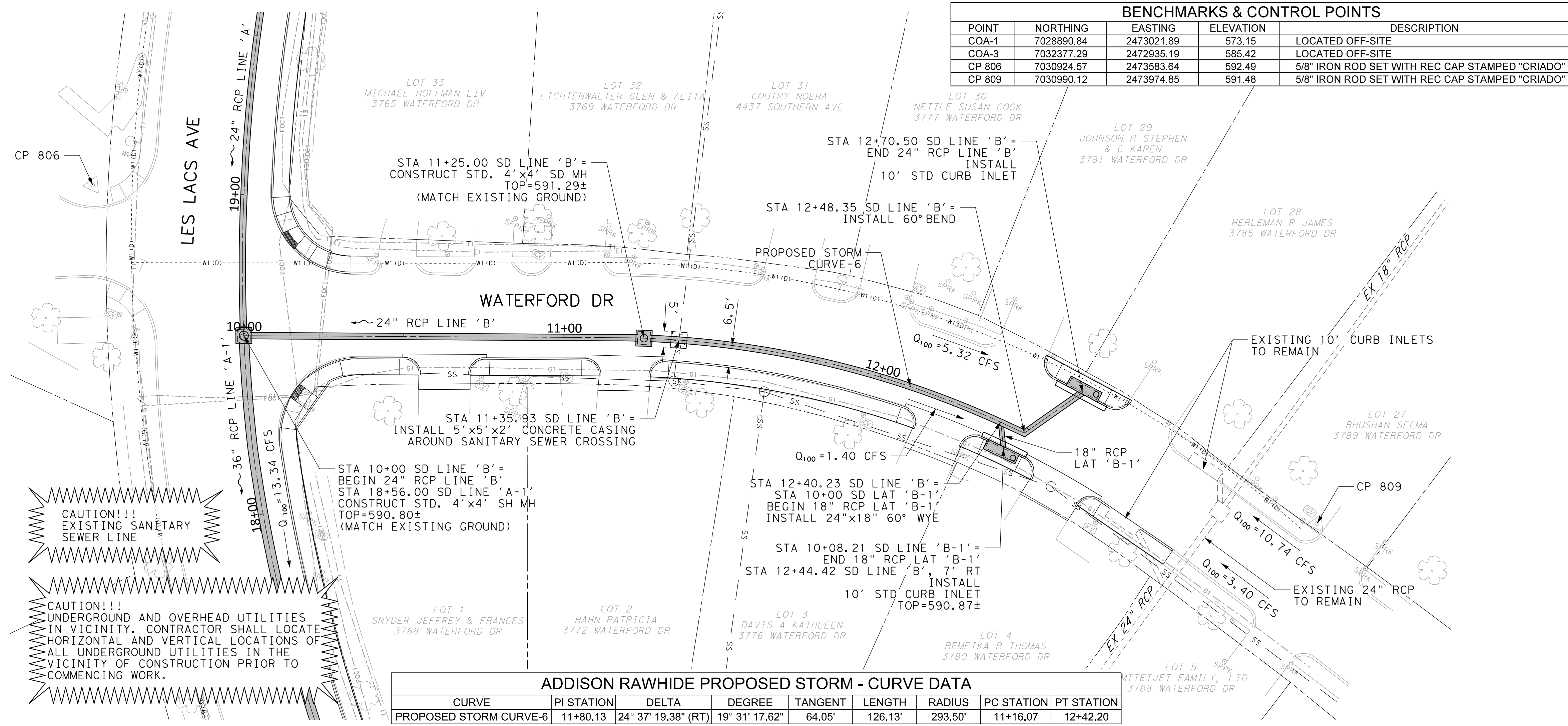
BENCHMARKS & CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 806	7030924.57	2473583.64	592.49	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
CP 809	7030990.12	2473974.85	591.48	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"



LEGEND

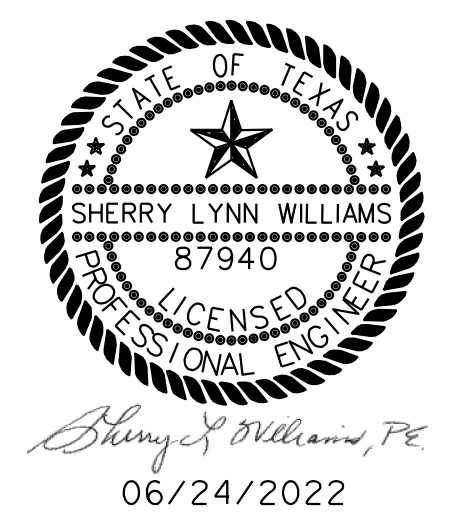
- PROPOSED STORM DRAIN
- PROPOSED INLET
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ADDISON RAWHIDE PROPOSED STORM - CURVE DATA

CURVE	PI STATION	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	PC STATION	PT STATION
PROPOSED STORM CURVE-6	11+80.13	24° 37' 19.38" (RT)	19° 31' 17.62"	64.05'	126.13'	293.50'	11+16.07	12+42.20



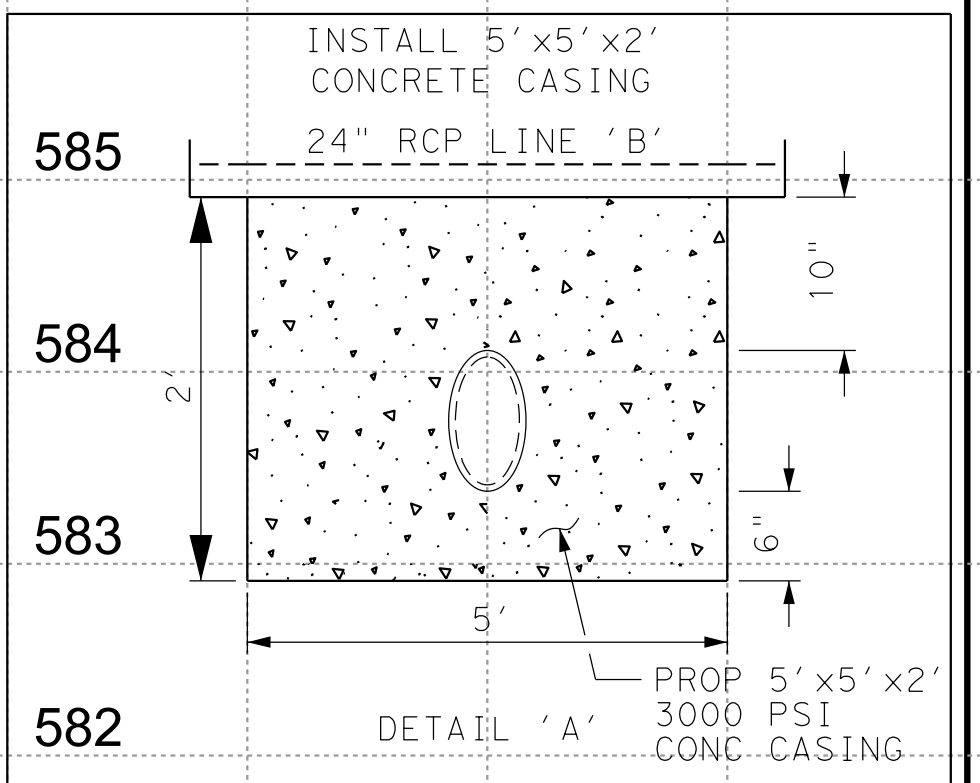
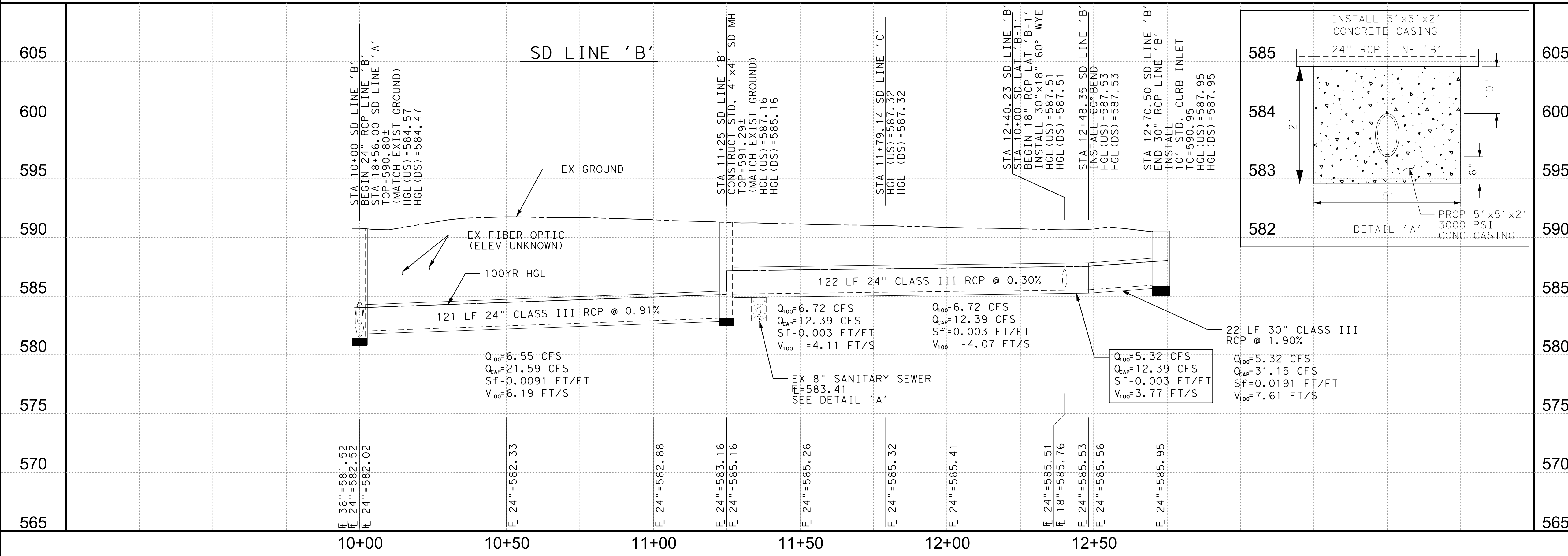
REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

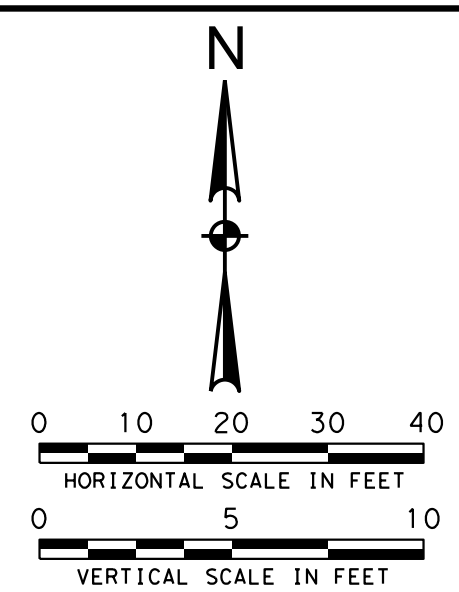
DRAINAGE PLAN & PROFILE
SD LINE 'B' BEGIN TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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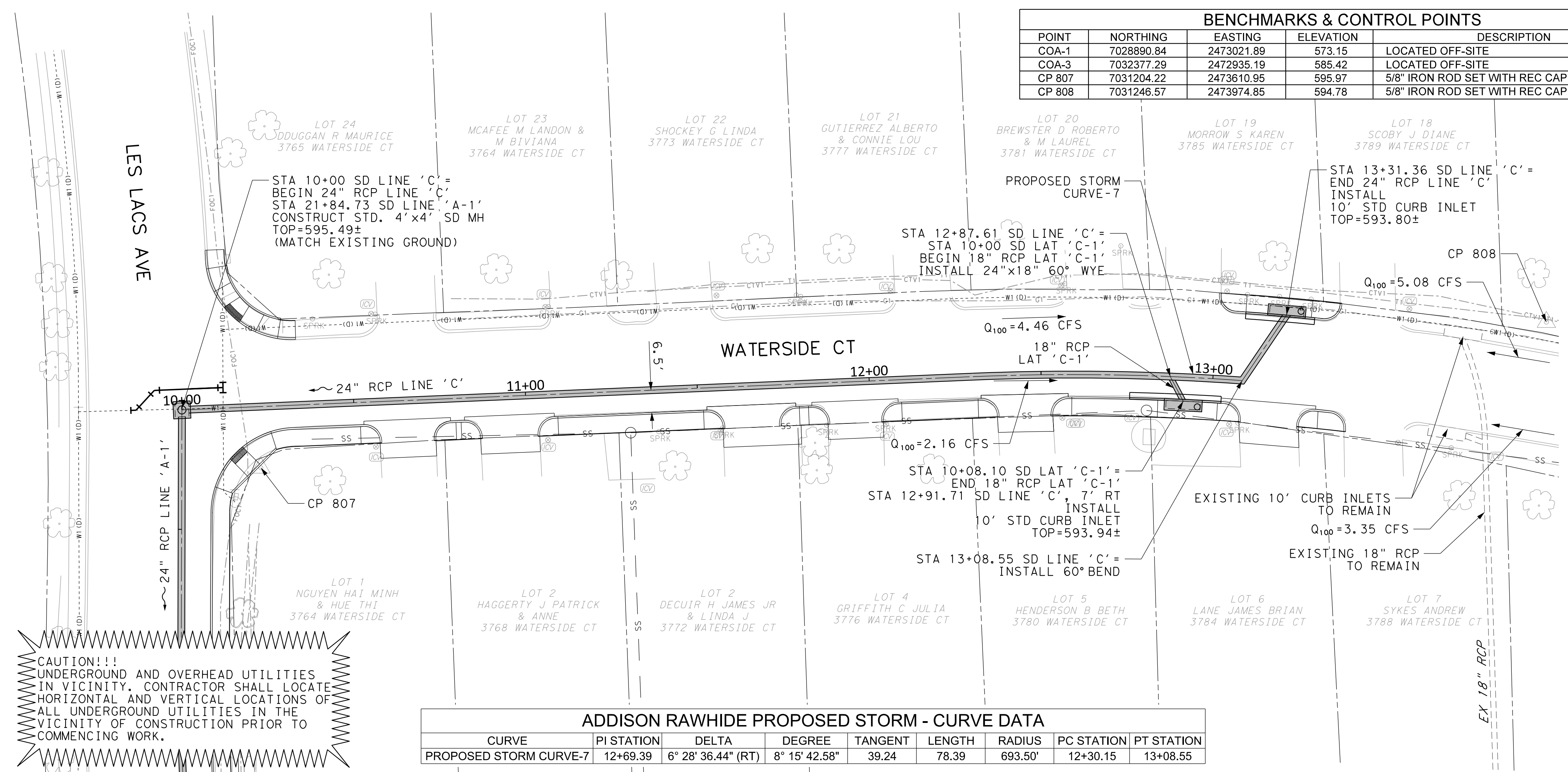
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BENCHMARKS & CONTROL POINTS				
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COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 807	7031204.22	2473610.95	595.97	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
CP 808	7031246.57	2473974.85	594.78	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"



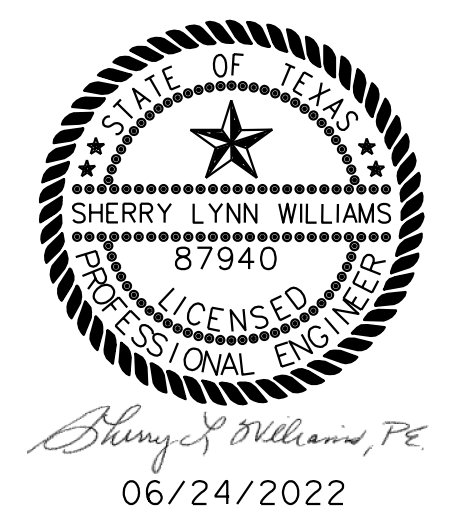
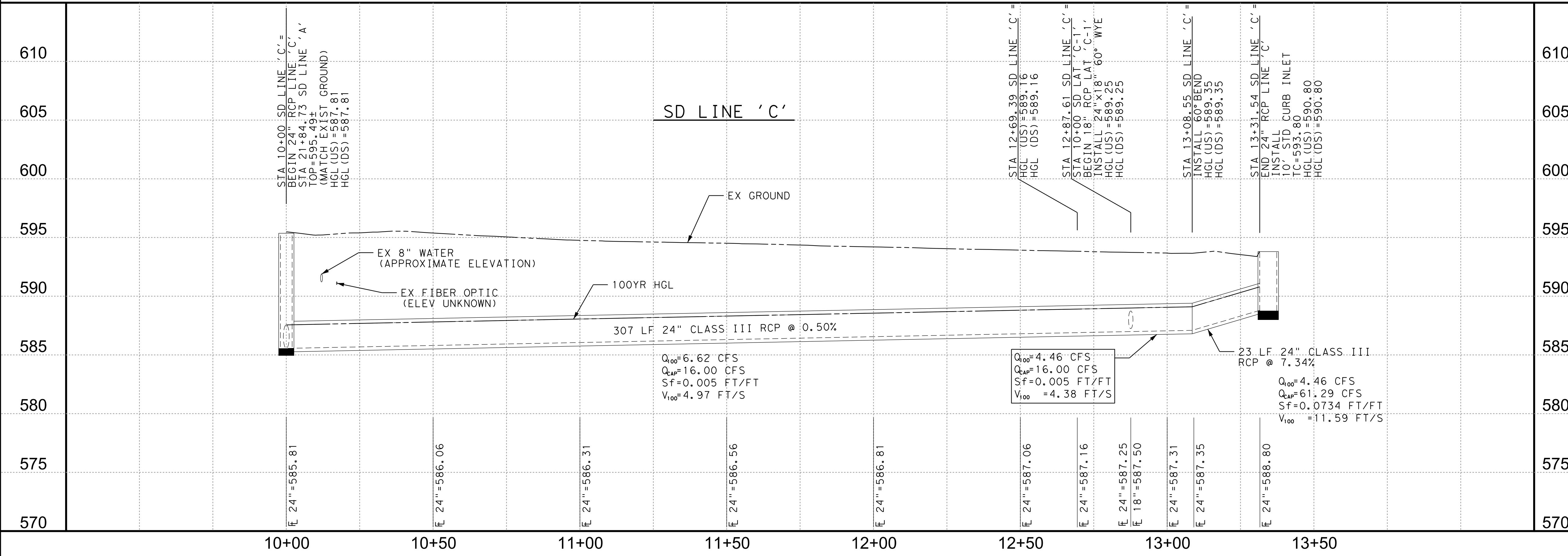
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- PROPOSED STORM DRAIN
 - PROPOSED INLET
 - PROPOSED MANHOLE
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ADDISON RAWHIDE PROPOSED STORM - CURVE DATA								
CURVE	PI STATION	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	PC STATION	PT STATION
PROPOSED STORM CURVE-7	12+69.39	6° 28' 36.44" (RT)	8° 15' 42.58"	39.24	78.39	693.50'	12+30.15	13+08.55



REV NO.	DATE	DESCRIPTION	BY
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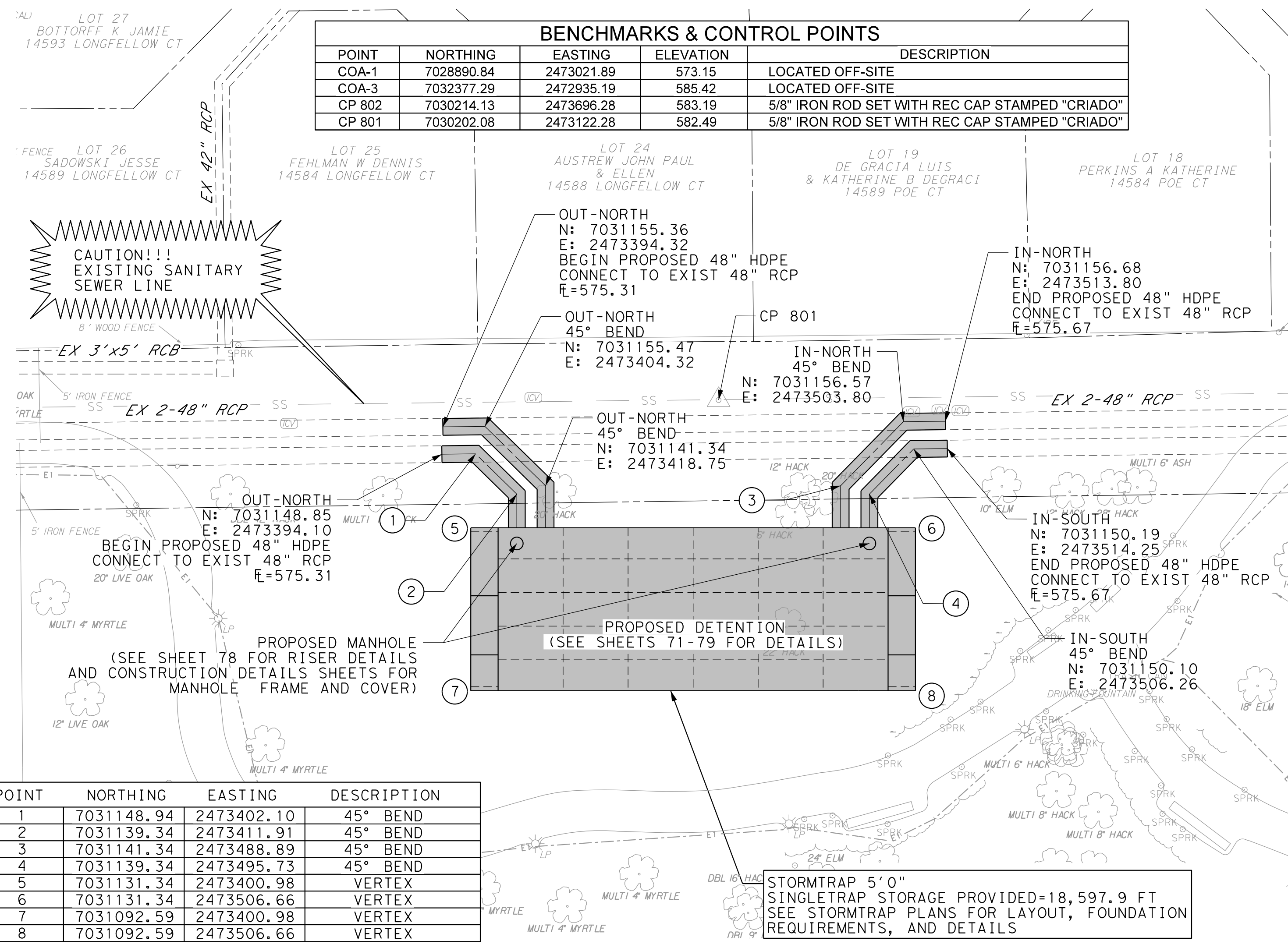


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

DRAINAGE PLAN & PROFILE
SD LINE 'C' BEGIN TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		42

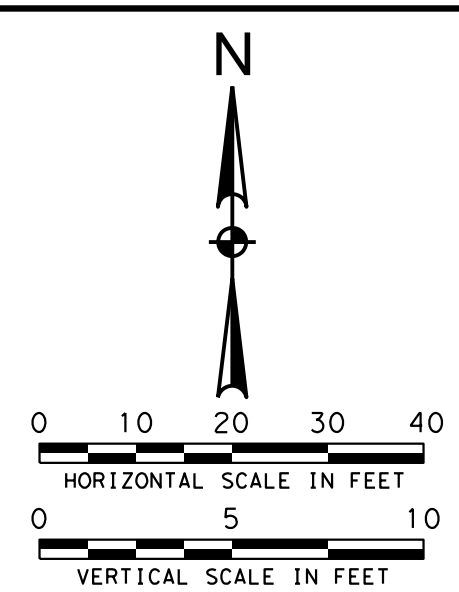
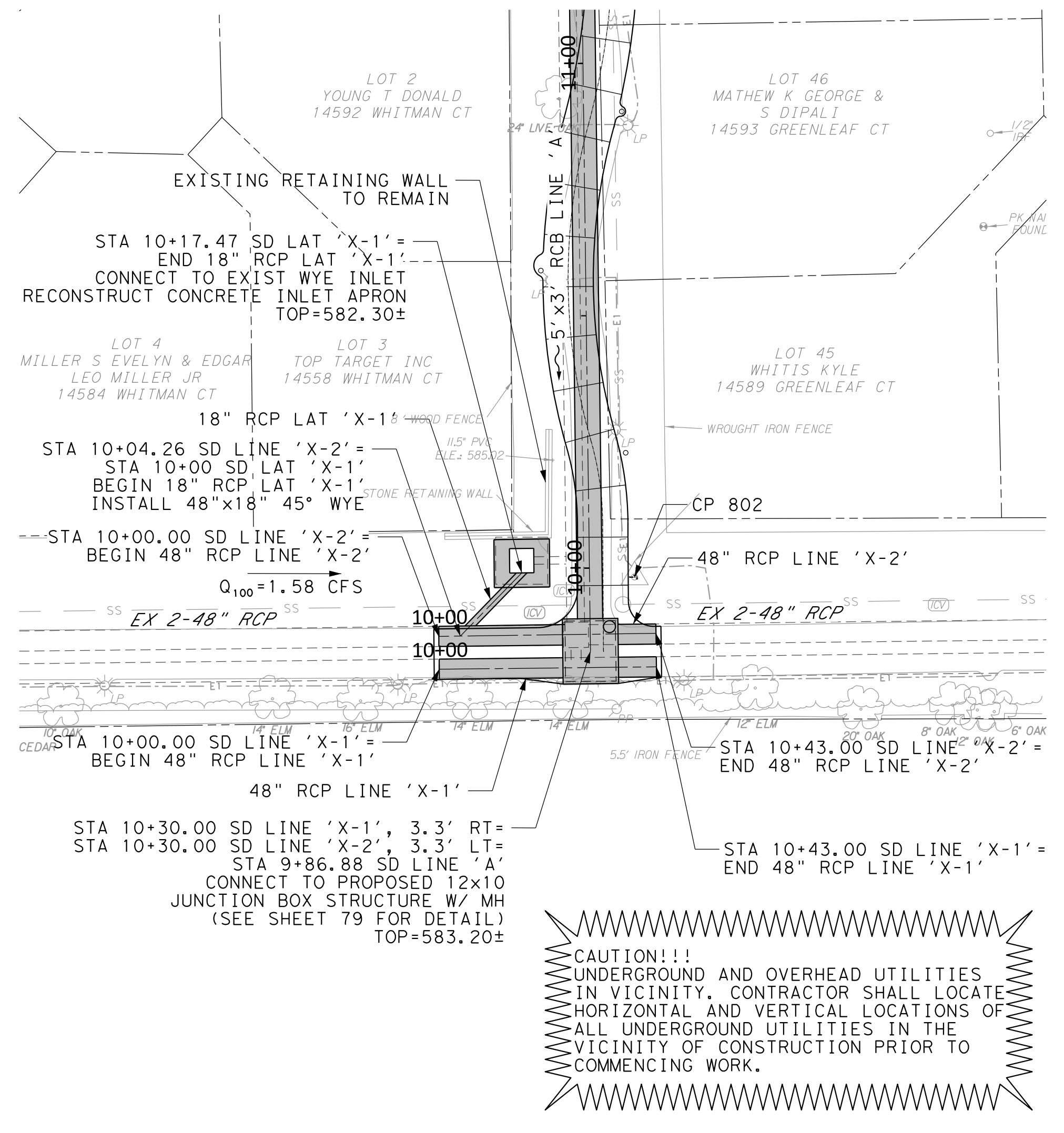
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BENCHMARKS & CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE
CP 802	7030214.13	2473696.28	583.19	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"
CP 801	7030202.08	2473122.28	582.49	5/8" IRON ROD SET WITH REC CAP STAMPED "CRIADO"

POINT	NORTHING	EASTING	DESCRIPTION
1	7031148.94	2473402.10	45° BEND
2	7031139.34	2473411.91	45° BEND
3	7031141.34	2473488.89	45° BEND
4	7031139.34	2473495.73	45° BEND
5	7031131.34	2473400.98	VERTEX
6	7031131.34	2473506.66	VERTEX
7	7031092.59	2473400.98	VERTEX
8	7031092.59	2473506.66	VERTEX

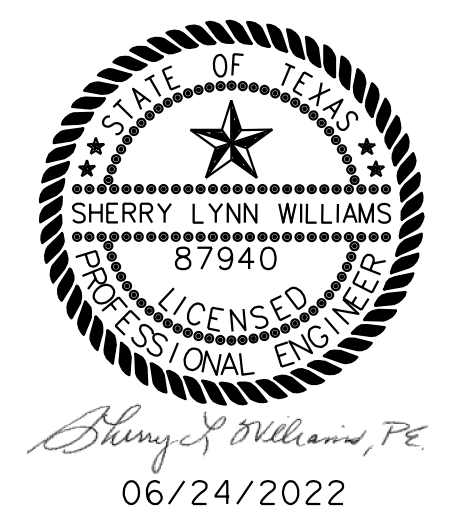
STORMTRAP 5'0" SINGLETRAP STORAGE PROVIDED=18,597.9 FT SEE STORMTRAP PLANS FOR LAYOUT, FOUNDATION REQUIREMENTS, AND DETAILS



- LEGEND**
- PROPOSED STORM DRAIN
 - PROPOSED INLET
 - PROPOSED MANHOLE
 - EXISTING STORM DRAIN
 - EXISTING INLET
 - EXISTING SANITARY SEWER

- NOTES:**
- UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION
 - SLOPES SHOWN BASED ON HYDRAULIC LENGTH OF PIPE SEGMENT (CENTER OF NODE TO CENTER OF NODE) LENGTHS SHOWN ARE ACTUAL LENGTH OF PIPE
 - INLET CONTROL POINT STA/OFF SHOWN AT CENTER LINE OF INLET BOX AT BACK OF CURB
 - POSITIVE DRAINAGE TO BE MAINTAINED AT ALL TIMES
 - TOWN INSPECTOR WILL DETERMINE FINAL PAVEMENT REMOVAL LIMITS. ACTUAL LIMITS OF REMOVAL MAY VARY BASED ON SITE CONDITIONS
 - CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STORM DRAIN PIPES PRIOR TO EXCAVATION
 - EXISTING STORM DRAIN PIPES ARE SHOWN PER RECORD DRAWINGS FOR DEVELOPMENT PLANS FOR GRAND ADDISON II AND III AND WATERFORD PARK II

CAUTION!!! UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING WORK.



REV. NO.	DATE	DESCRIPTION	BY
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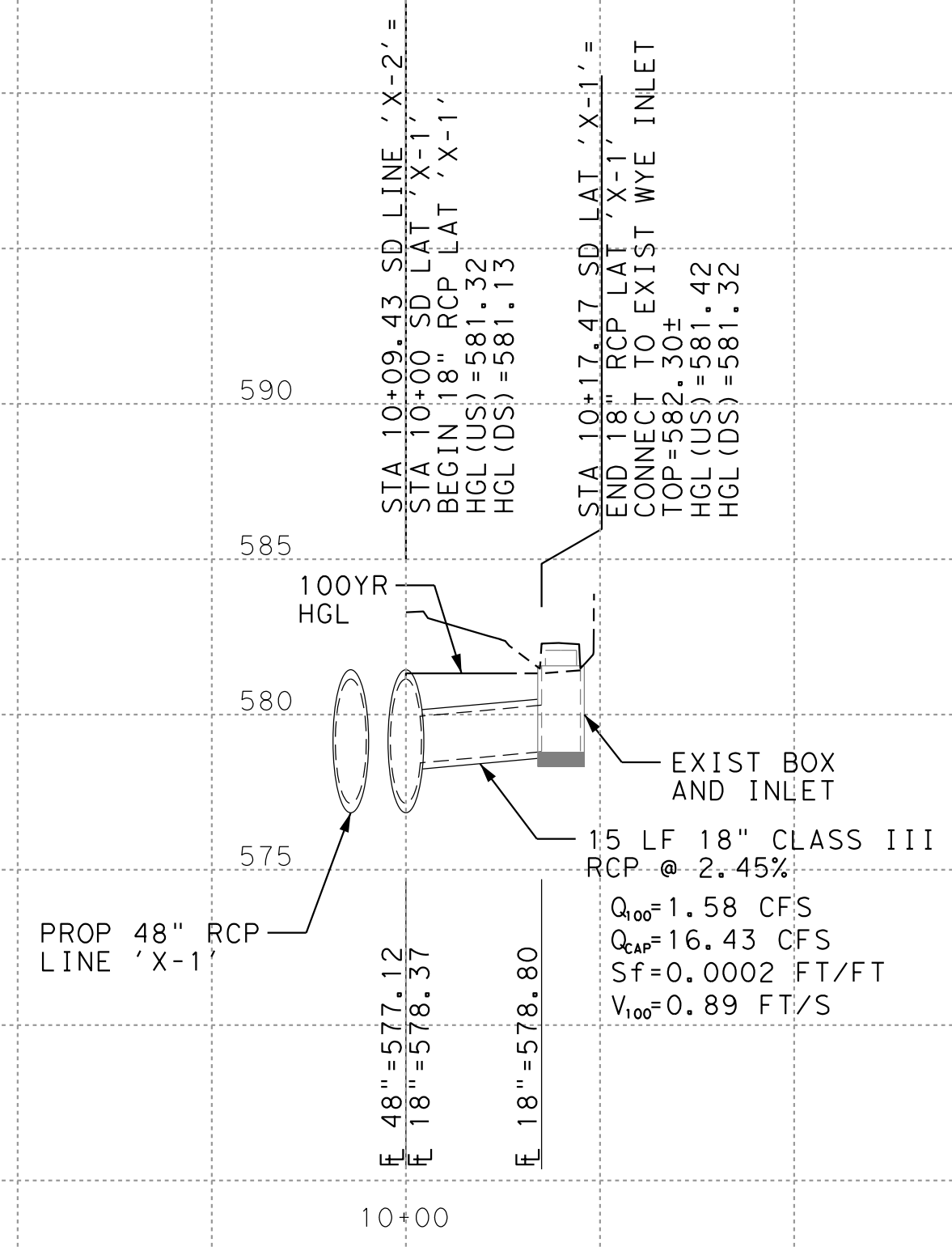
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

**DRAINAGE PLAN & PROFILE
 SD LINES 'X-1', 'X-2' & DETENTION
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS**

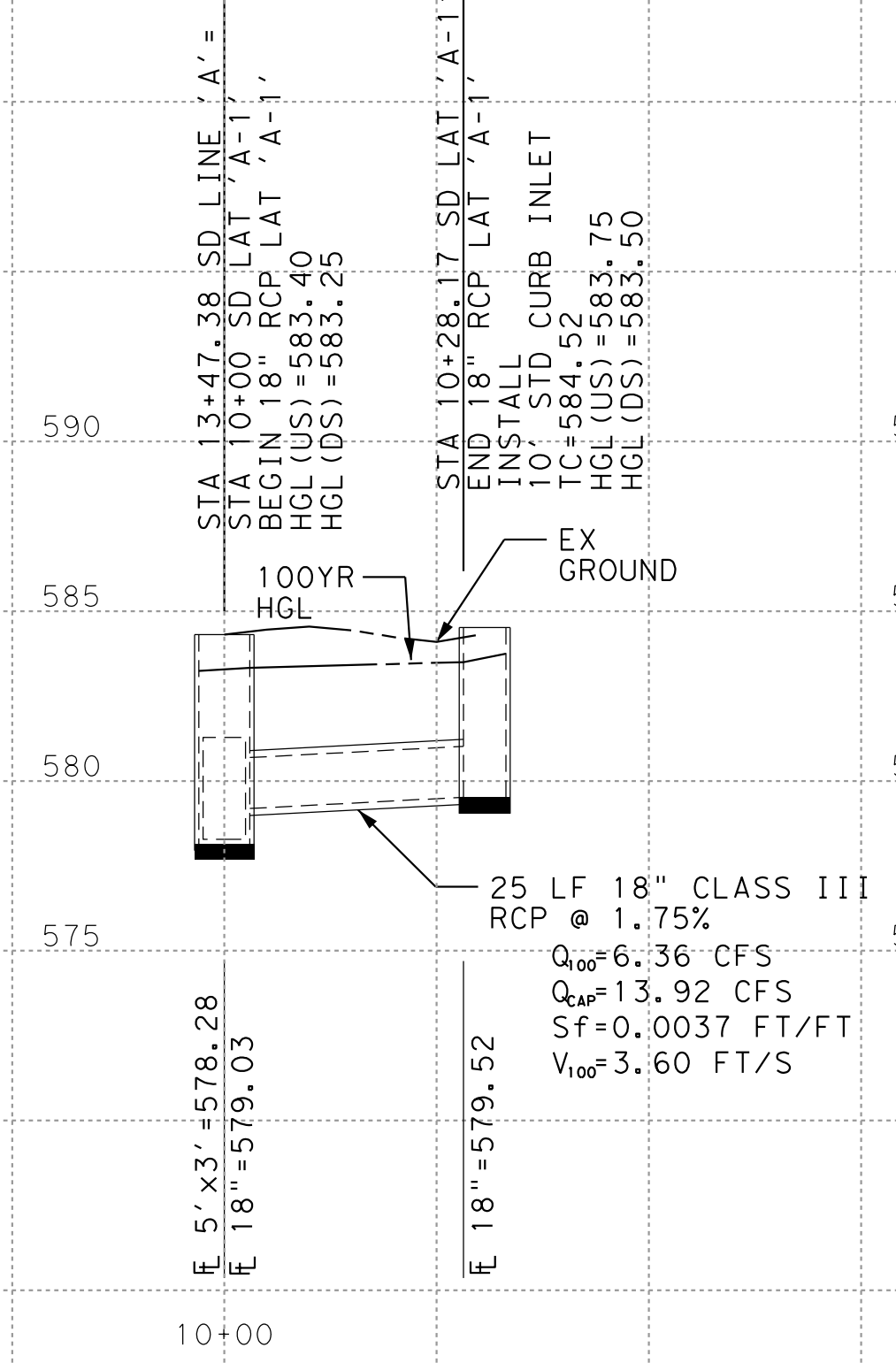
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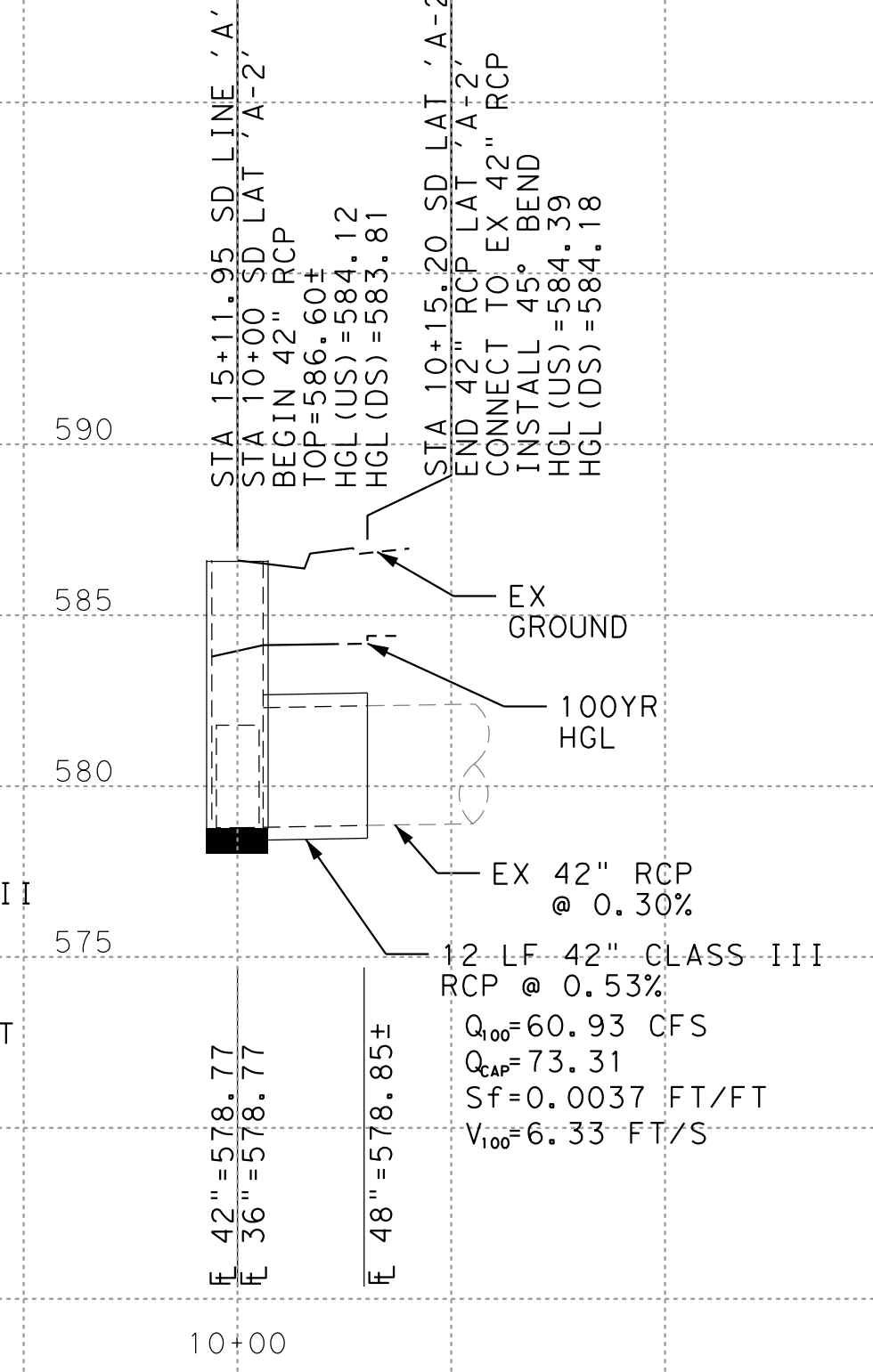
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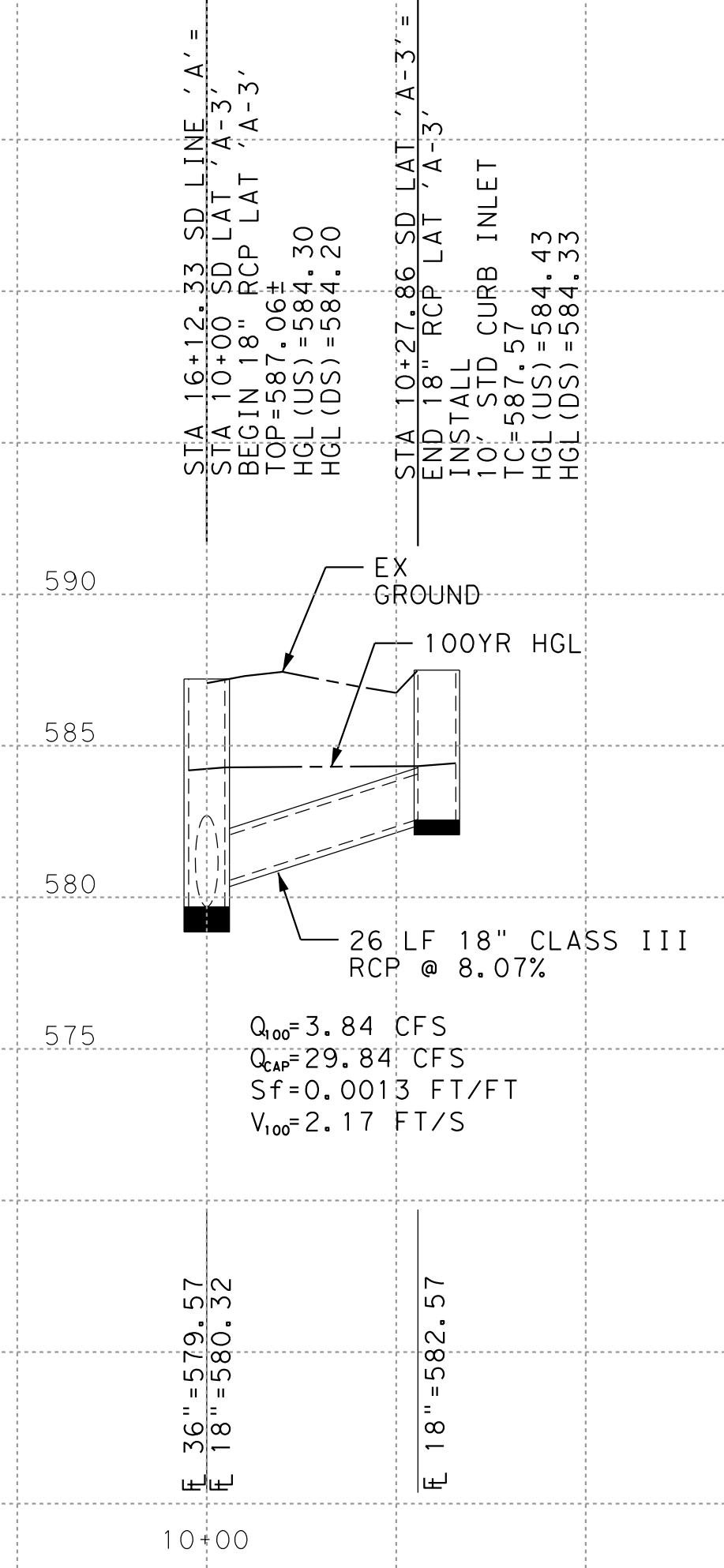
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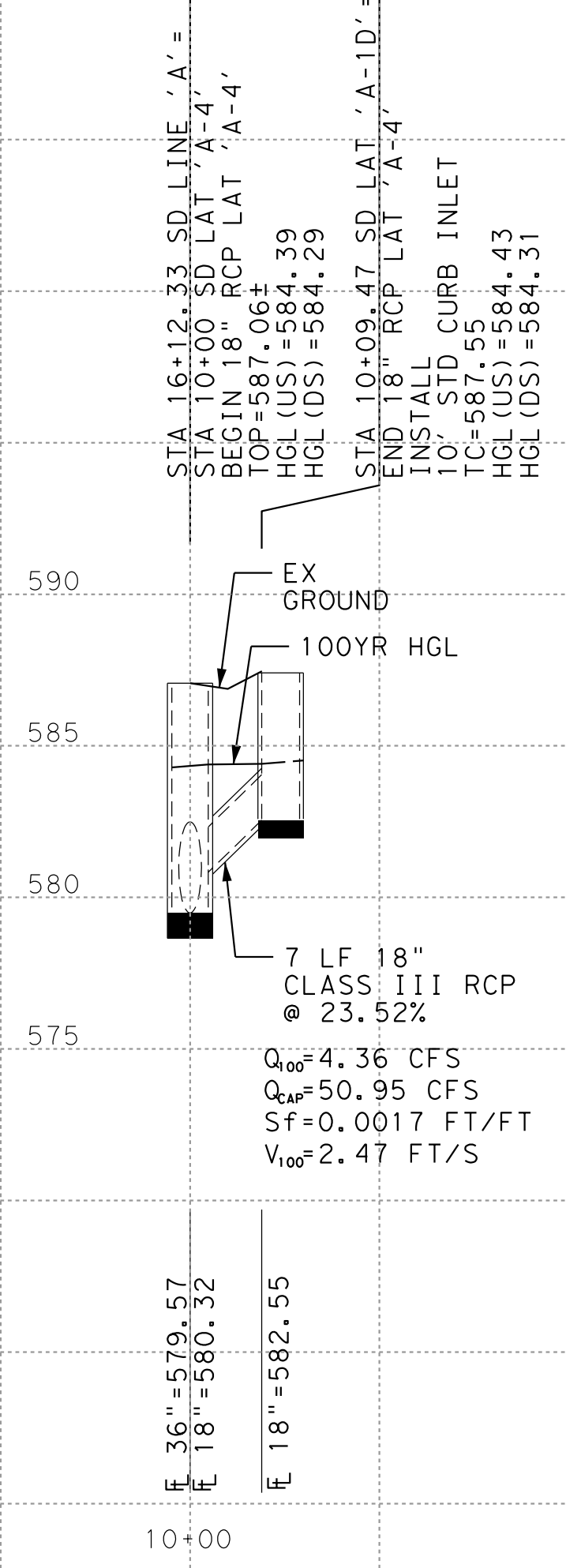
SD LAT 'A-2'



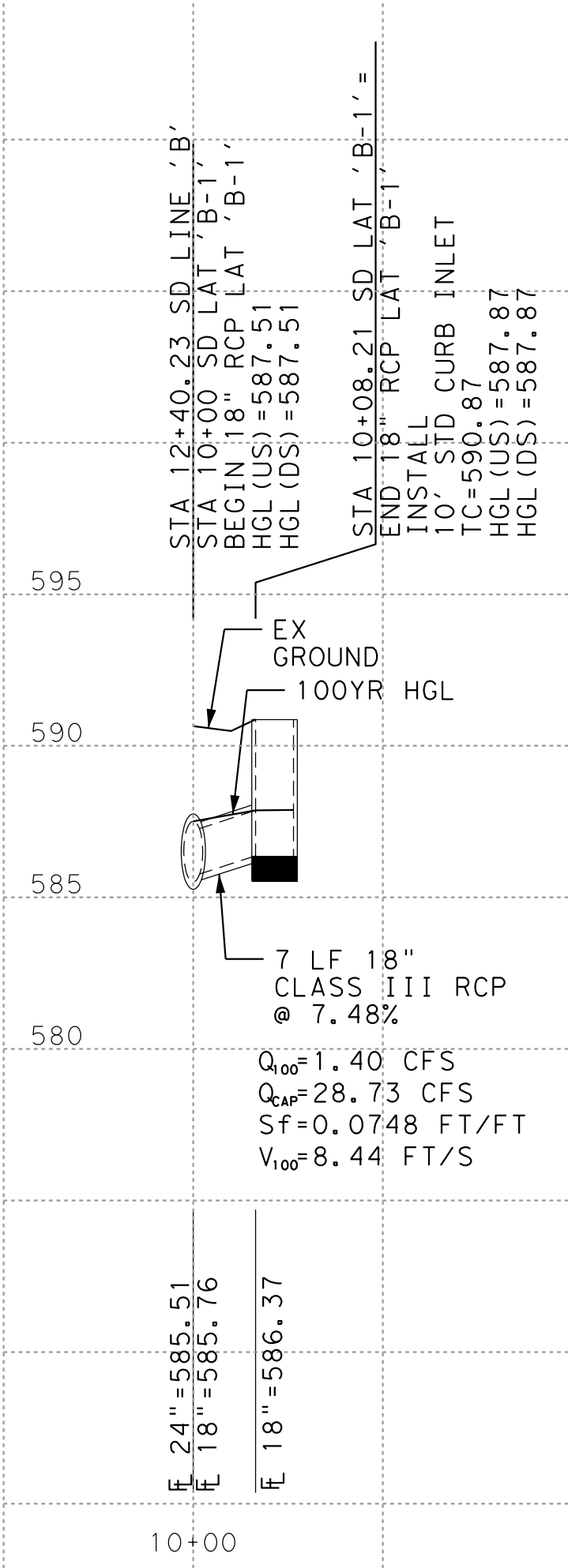
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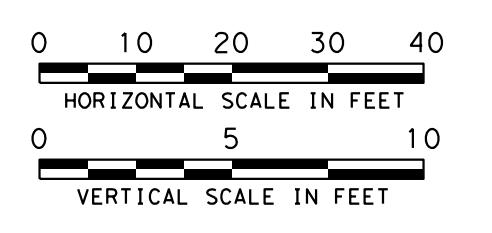
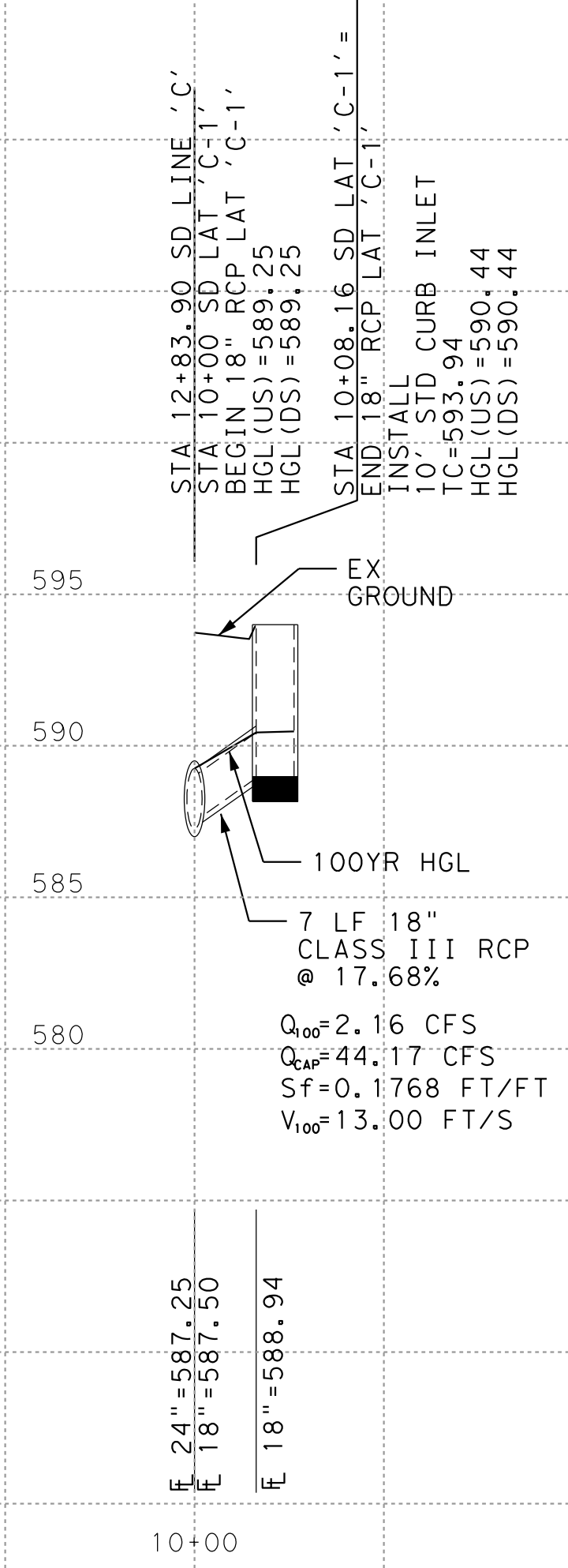
SD LAT 'A-4'



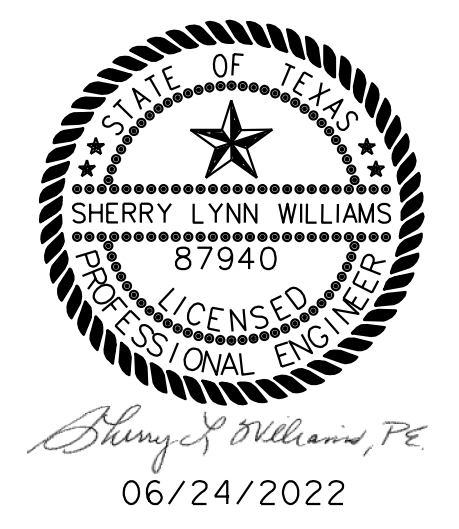
SD LAT 'B-1'



SD LAT 'C-1'



- NOTES:
- FIELD EVIDENCE OF EXISTING UTILITIES IN VICINITY OF PROPOSED CURB INLET LOCATIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITY CROSSINGS PRIOR TO START OF CONSTRUCTION OR ORDERING OF MATERIALS



REV NO.	DATE	DESCRIPTION	BY
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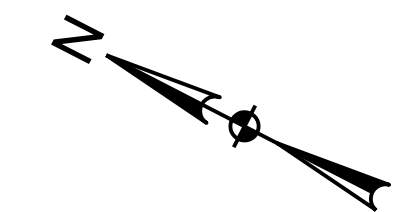


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

DRAINAGE LATERAL PROFILES						
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		44

DETAIL A

TO BE CONSTRUCTED BY OTHERS

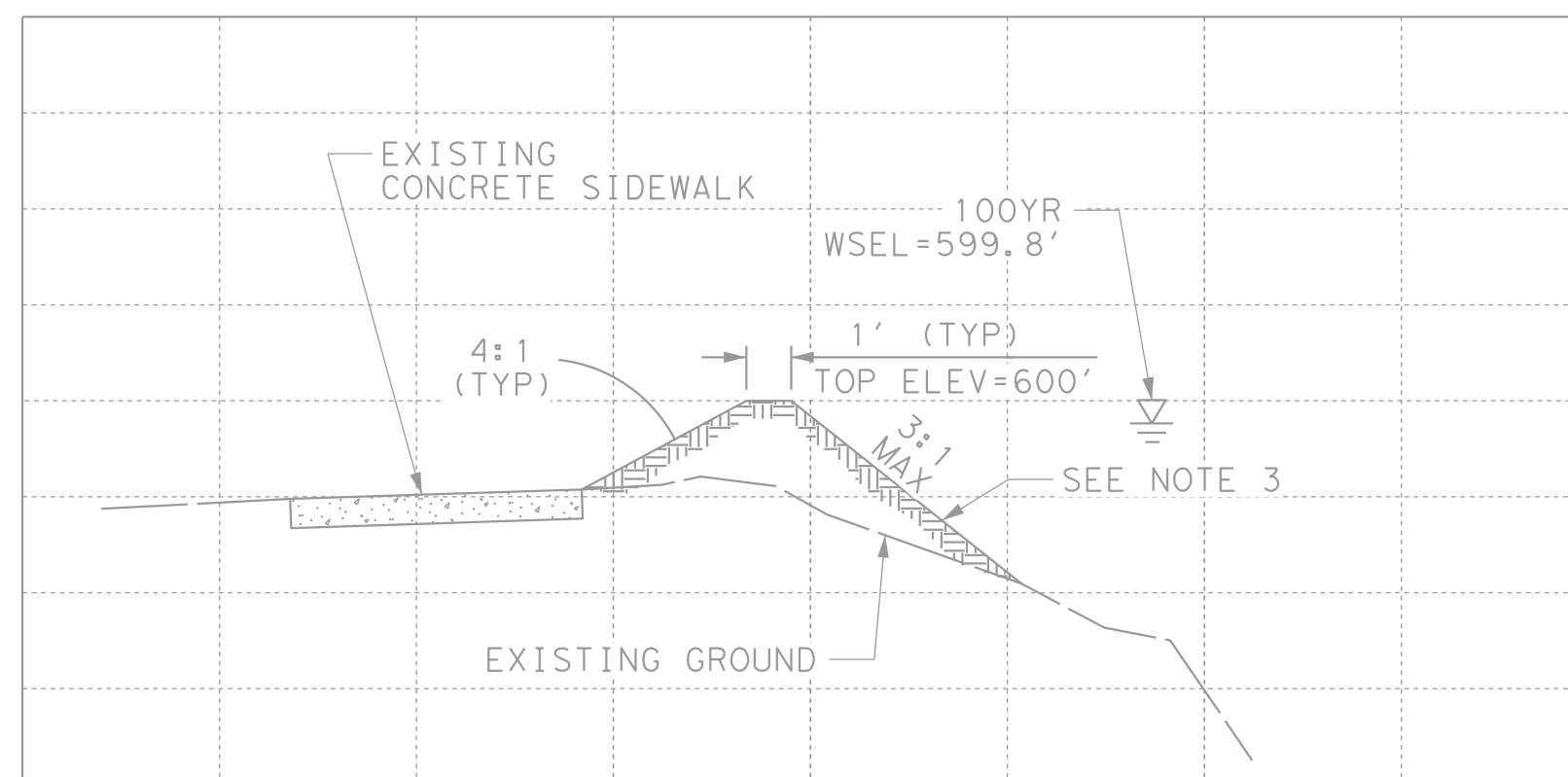
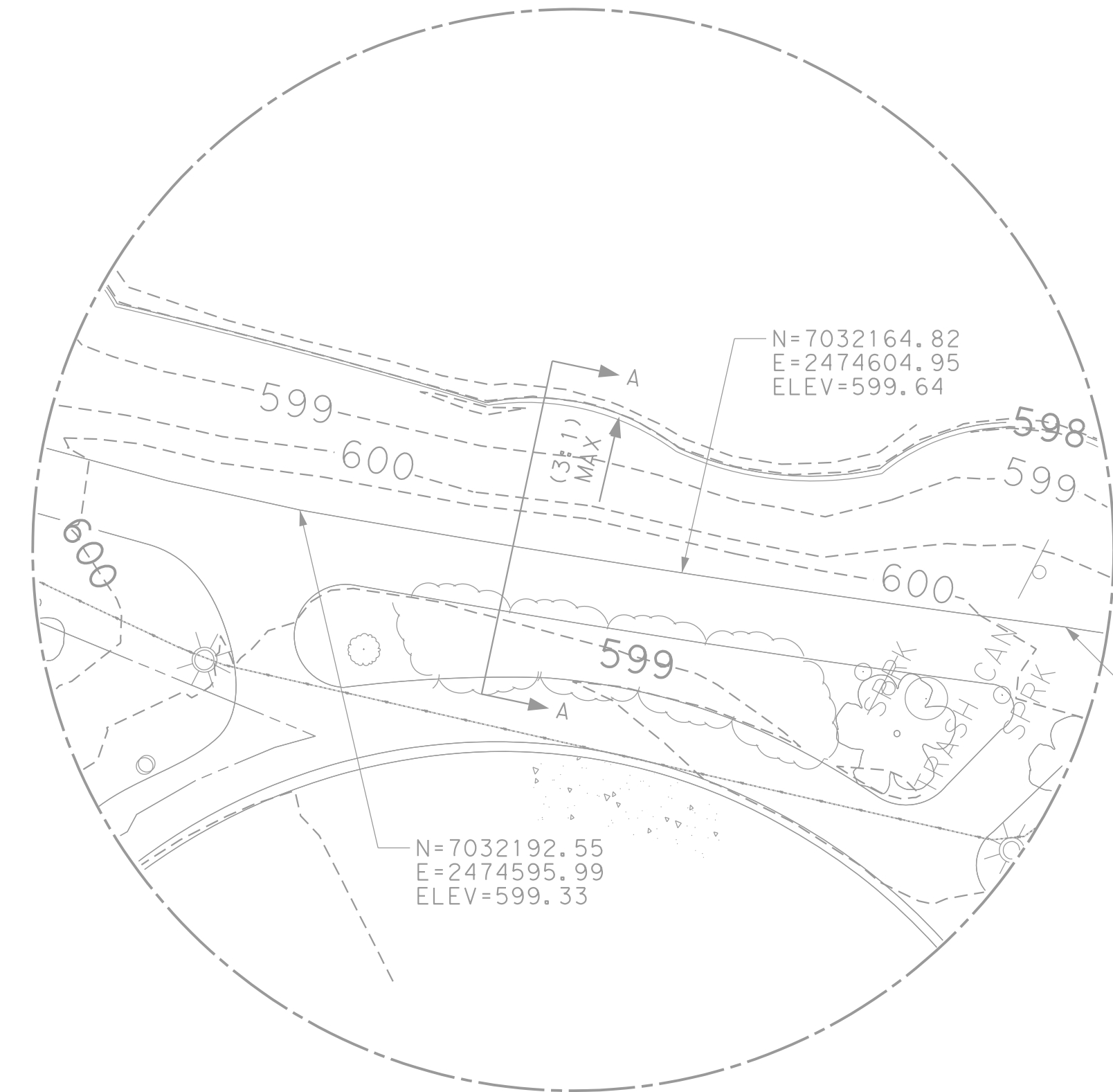


LEGEND

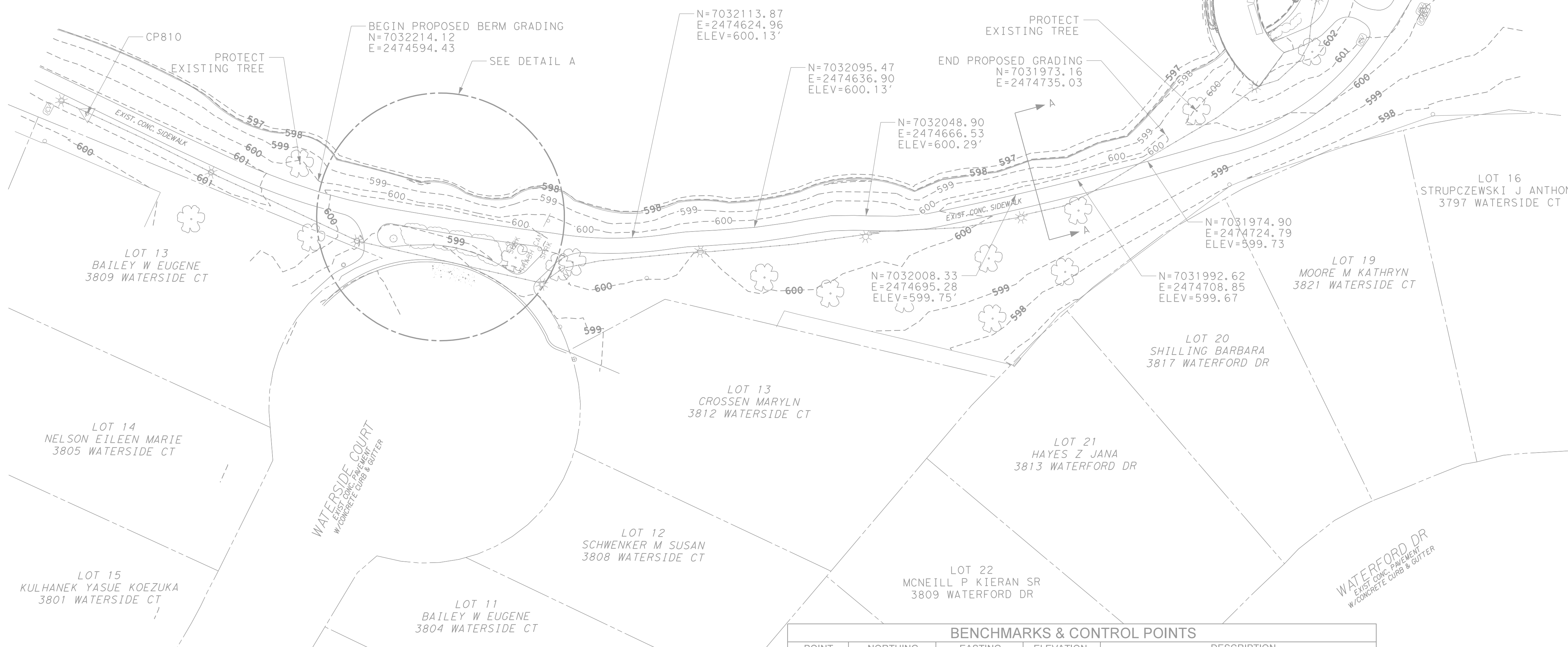
- 100--- PROPOSED CONTOUR
- 100--- EXISTING CONTOUR

NOTES:

1. CONTROL IS BASED UPON TOWN OF ADDISON PUBLISHED CONTROL POINTS COA-10 AND COA-5. SURFACE ADJUSTMENT FACTOR IS 1.000136506.
2. INFORMATION SHOWN HEREON IS BASED UPON DOCUMENTS OF RECORD AND SHOULD NOT BE CONSTRUED AS BOUNDARY SURVEY.
3. INSTALL TEMPORARY EROSION CONTROL BLANKETS AT ALL BERM BACKSLOPES.
4. 100 YEAR WATER SURFACE ELEVATION OBTAINED FROM THE STORMWATER SYSTEM ASSESSMENT AND CIP STUDY AND REPORT CONDUCTED BY HALFF DATED AUGUST, 2017.
5. FILL SHALL NOT EXCEED 4" OF TREE CRITICAL ZONE. NO FILL WITHIN 5' OF TRUNK.



SECTION A-A
(NTS)



EXISTING LAKE
100YR WSEL = 599.8 FT

WAYSIDE COURT
EXIST. CONC. PAVEMENT
W/CONCRETE CURB & GUTTER

LOT 16
STRUPCZEWSKI J ANTHONY
3797 WATERSIDE CT

LOT 19
MOORE M KATHRYN
3821 WATERSIDE CT

LOT 20
SHILLING BARBARA
3817 WATERFORD DR

LOT 21
HAYES Z JANA
3813 WATERFORD DR

LOT 22
MCNEILL P KIERAN SR
3809 WATERFORD DR

LOT 12
SCHWENKER M SUSAN
3808 WATERSIDE CT

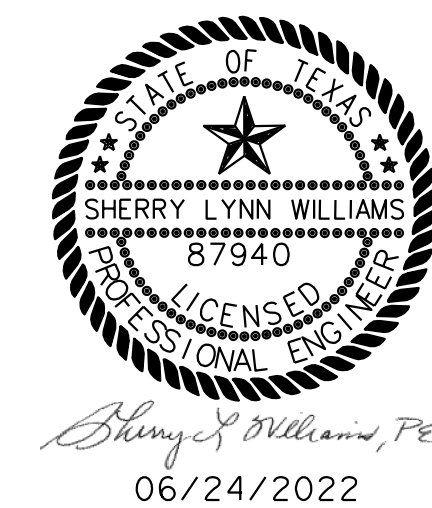
LOT 11
BAILEY W EUGENE
3804 WATERSIDE CT

LOT 14
NELSON EILEEN MARIE
3805 WATERSIDE CT

LOT 15
KULHANEK YASUE KOEZUKA
3801 WATERSIDE CT

LOT 13
BAILEY W EUGENE
3809 WATERSIDE CT

LOT 13
CROSSEN MARYLN
3812 WATERSIDE CT



REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

ADDISON RAWHIDE BASIN
BERM GRADING PLAN (BY OTHERS)
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		45

BENCHMARKS & CONTROL POINTS					
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	
COA-1	7028890.84	2473021.89	573.15	LOCATED OFF-SITE	
COA-3	7032377.29	2472935.19	585.42	LOCATED OFF-SITE	
CP810	7032291.71	2474579.32	601.23	5/8" IRONROD SET WITH REC CAP STAMPED "CRIADO"	
CP811	7031965.56	2474854.46	600.37	5/8" IRONROD SET WITH REC CAP STAMPED "CRIADO"	

A. GENERAL SITE DATA

1. PROJECT LIMITS:

Begin Project Coordinates : Latitude (N) : 32.94°N Longitude (W) : - 96.85°W

2. PROJECT SITE MAPS:

- * Project Location Map: Title Sheet
- * Drainage Patterns: Drainage Area Map (Sheets 34-35)
- * Slopes Anticipated After Major Gradings or Areas of Soil Disturbance: Typical Section (Sheet 45)
- * Location of Erosion and Sediment Controls: SW3P Site Maps (Sheets 47-51)
- * Surface Waters and Discharge Locations: Drainage (Sheets 38-43)
- * Project Specific Location(s) (PSL): To be determined by the project Construction Personnel. Location(s) shown on SW3P Site Map (If PSL location(s) is within one mile of project) and information located in project SW3P Binder (Reference Item *10 below).

3. PROJECT DESCRIPTION:

Construction of proposed storm drain and ADA Improvements from Brookwood Ln to Waterside Ct.

4. MAJOR SOIL DISTURBING ACTIVITIES:

- Demo of Existing Pavement.
- Site Preparation.
- Utility Construction.
- Trench Repair.
- Berm Regrading.

5. EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER:

Existing soil is silty clay and bedrock.

6. TOTAL PROJECT AREA: 2.5 Acres

7. TOTAL AREA TO BE DISTURBED: 1.3 Acres (52 %)

8. WEIGHTED RUNOFF COEFFICIENT

BEFORE CONSTRUCTION: 0.60
AFTER CONSTRUCTION: 0.60

9. NAME OF RECEIVING WATERS:

Rawhide Creek

10. PROJECT SW3P Binder:

- A. For projects disturbing one to five acres, Contractor will maintain a SW3P Binder at the project site which contains the following: Index Sheet, TCEQ Signature Authority, TCEQ Small Construction, Site Notice, Contractor Certification of Compliance, SW3P Inspector Qualification Statements, Inspection and Maintenance Reports (Form 2118), EPIC Sheet, SW3P Sheet, Site Location Maps, Stored Material Lists specifying associated control measures and the Appendix which contains the TPDES Construction General Permit, MS4 Operator Notification(s) and the Construction PSL Permits per all applicable requirements.
- B. For projects disturbing 5 acres or more, TxDOT will follow the actions listed in (10.A.) above with the addition of the following: Notice Of Intent (N.O.I.) and Fee Payment Form, TCEQ Large Construction Site Notice (to be used instead of Small Site Notice), and TPDES Permit Coverage Notice.
- C. For projects disturbing less than one acre, actions described in (10.A.) and (10.B.) above are not required. Acreage is calculated by adding Total Area To Be Disturbed Acres on project (See *7 above) and the PSL(s) acreage located within one mile of project.

B. EROSION AND SEDIMENT CONTROLS

1. SOIL STABILIZATION PRACTICES: (Select T = Temporary or P = Permanent, as applicable)

- TEMPORARY SEEDING
- MULCHING (Hay or Straw)
- BUFFER ZONES
- PLANTING
- SEEDING
- SODDING
- PRESERVATION OF NATURAL RESOURCES
- FLEXIBLE CHANNEL LINER
- RIGID CHANNEL LINER
- SOIL RETENTION BLANKET
- COMPOST MANUFACTURED TOPSOIL
- VERTICAL TRACKING
- OTHER:

2. STRUCTURAL PRACTICES: (Select T = Temporary or P = Permanent, as applicable)

- SILT FENCES
- EROSION CONTROL LOGS
- EROSION CONTROL COMPOST BERMS (Low Velocity)
- ROCK FILTER DAMS
- DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- DIVERSION DIKE AND SWALE COMBINATIONS
- PIPE SLOPE DRAINS
- PAVED FLUMES
- ROCK BEDDING AT CONSTRUCTION EXIT
- TIMBER MATTING AT CONSTRUCTION EXIT
- CHANNEL LINERS
- SEDIMENT TRAPS
- SEDIMENT BASINS
- STORM INLET SEDIMENT TRAP
- STONE OUTLET STRUCTURES
- CURBS AND GUTTERS
- STORM SEWERS
- VELOCITY CONTROL DEVICES
- OTHER:

NOTE: TOP OF BMP'S SHOULD NOT BE HIGHER THAN ROADWAY ELEVATION AS NOT TO FLOOD ROADWAY UNLESS PRIOR APPROVAL FROM ENGINEER IS OBTAINED.

3. STORM WATER MANAGEMENT:

- A. Storm water drainage will be provided by, inlets, and storm water systems which carry drainage within the R.O.W. to the lows within the roadway and project site which drains to natural facilities.

4. STORM WATER MANAGEMENT ACTIVITIES: (Sequence of Construction)

Phase I Construction:
Install temporary erosion control logs on existing curb inlets and along ROW downstream of project site. Following demolition of Inlet tops Install TECL around inlet bottoms.

Phase II Construction:
Install TECL around constructed Inlet bottoms.

Phase III Construction:
Install block sod/seedling over disturbed non-pavement surfaces. Upon establishment of ground cover vegetation, remove TECLs from inlets and ROW.

5. NON-STORM WATER DISCHARGES:

Filter non-storm water discharges, or hold in retention basins, before being allowed to mix with storm water. These discharges consist of, but not limited to, non-polluted ground water, spring water, foundation or footing drain water, water used for dust control or pavement washing and vehicle washwater containing no detergents.

C. OTHER REQUIREMENTS & PRACTICES

1. MAINTENANCE:

Maintain all erosion and sediment controls in good working order. Perform any necessary cleaning/repairs/replacements at the earliest possible date prior to next rain event, but no later than 7 calendar days. Ensure the surrounding ground has dried sufficiently to prevent damage from equipment. "Too Wet" is the only reason for not adhering to timeframes described. When construction activities permanently or temporarily cease and are not expected to resume for 14 or more days on a disturbed portion of the site, stabilization measures must be initiated immediately.

2. INSPECTION:

A Town of Addison Inspector will perform a regularly scheduled SW3P inspection every 7 calendar days. An Inspection and Maintenance Report, signed by the Inspector and the Contractor, will be filed for each inspection. Revise/clean/repair/replace each BMP control device in accordance with the current TxDOT Standard Field Inspection and Maintenance Report (Form 2118) and Item 1 (Maintenance) above.

3. WASTE MATERIALS:

On a daily basis, or as may be directed, collect all waste materials, trash and debris from the construction site and deposit into a metal dumpster having a secure cover and which meets all state and local city solid waste management requirements. Empty the dumpster as required by regulation, or as may be directed, at a local approved landfill site. Do not bury construction waste on the construction project site.

4. HAZARDOUS WASTE & SPILL REPORTING:

As a minimum, any products in the following categories are considered to be hazardous: Paints, Acids, Solvents, Fuels, Asphalt Products, Chemical Additives for Soil Stabilization, and Concrete Curing Compounds or Additives. When storing hazardous material on the project site, or at a Project Specific Location, take all practicable precaution to prevent and/or contain any spillage of these materials. In the event of a spill, contact the spill coordinator immediately.

5. SANITARY WASTE:

Use a licensed sanitary waste management contractor to collect all sanitary waste from portable units as may be required by local regulation, or as directed.

6. CONSTRUCTION VEHICLE TRACKING:

On a regular basis, or as may be directed, dampen the work site for dust control and stabilize construction entrances/exits. Provide for a motorized broom or vacuum type sweeper to be available on a daily basis, or as may be directed, to remove sediment from paved roadways abutting or traversing the project site.

7. MANAGEMENT PRACTICES:

- A. Construct disposal areas, stockpiles, haul roads and PSL's in a manner that will minimize and control the amount of sediment that may enter receiving waters. Do not locate disposal areas in any wetland, waterbody or streambed.
- B. Locate construction staging areas, vehicle maintenance and PSL's areas in a manner to minimize the runoff of pollutants.
- C. When working in or near a wetland, install and maintain operating soil erosion and sediment controls at all times during construction and isolate the work from the wetland.
- D. Clear all waterways as soon as practicable of temporary embankment, temporary bridges, matting, falsework, piling, debris or other obstructions placed during construction operations that are not a part of the finished work.
- E. Procedures and/or practices should be taken to control dust.
- F. Sediment to be removed from roadways daily or when work begins after weather events if construction activities have ceased due to weather event.

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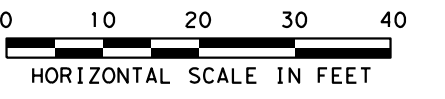


CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

STORMWATER POLLUTION PREVENTION PLAN
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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- LEGEND:
- CIP
 - CURB INLET PROTECTION
 - SURFACE FLOW DIRECTION
 - EXISTING CONTOURS

- NOTES:
1. SEE SW3P SHEET FOR MORE INFORMATION AND NOTES.
 2. COORDINATE SW3P BMP INSTALLATION SEQUENCE WITH OVERALL PHASING PLAN; SEE OVERALL PHASING PLAN SHEET FOR ADDITIONAL INFORMATION.
 3. CONTRACTOR SHALL ADJUST LOCATION OF CONSTRUCTION ENTRANCES DEPENDING ON CONSTRUCTION SEQUENCE PHASING TO PROVIDE EXIT FROM ANY ACTIVE DISTURBED AREA.



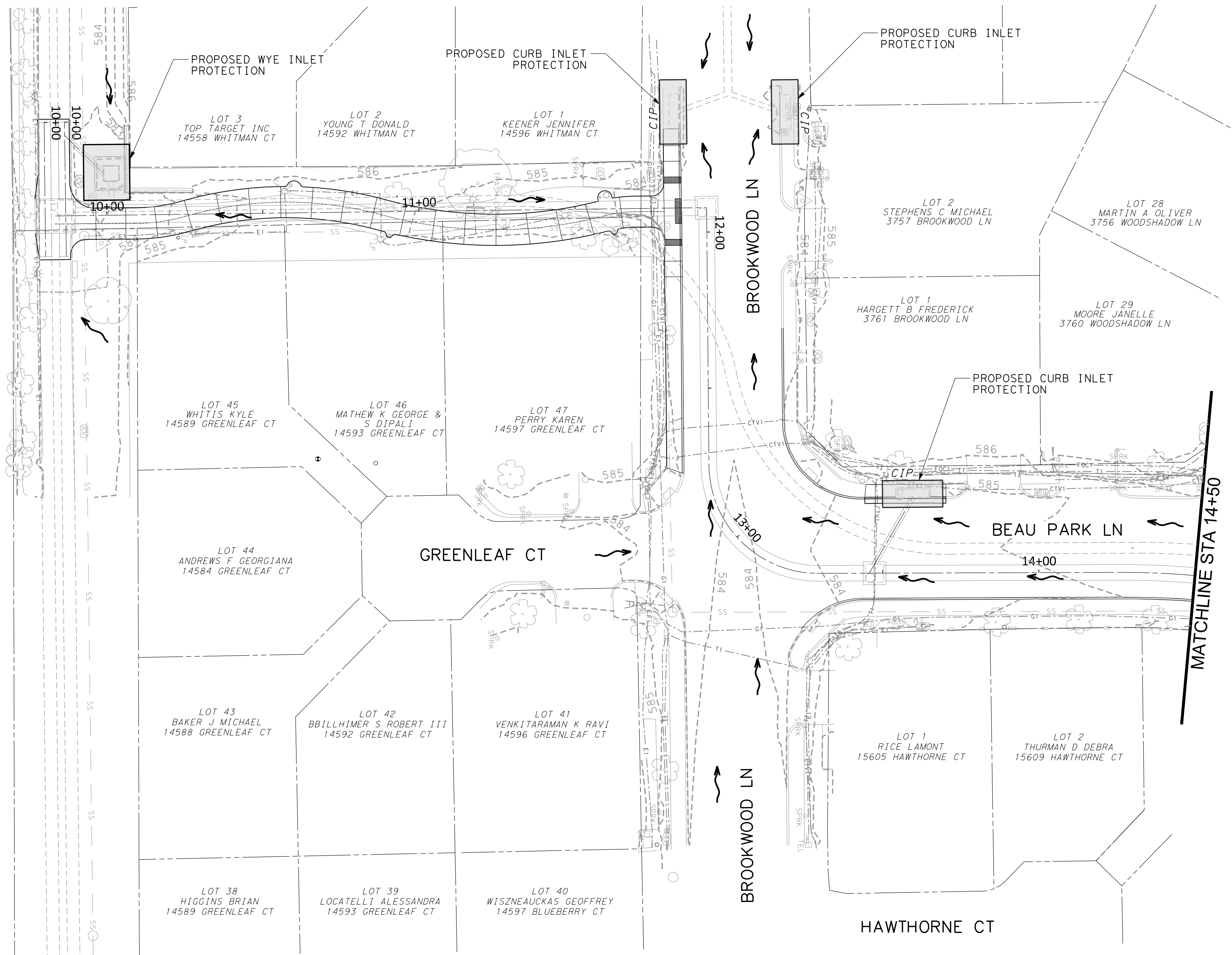
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

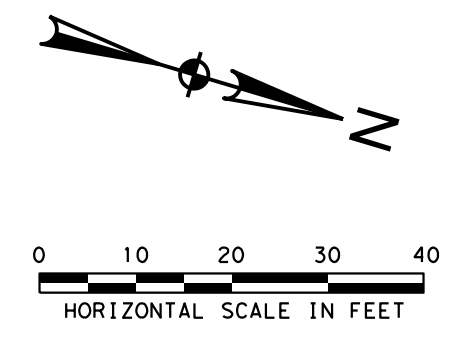
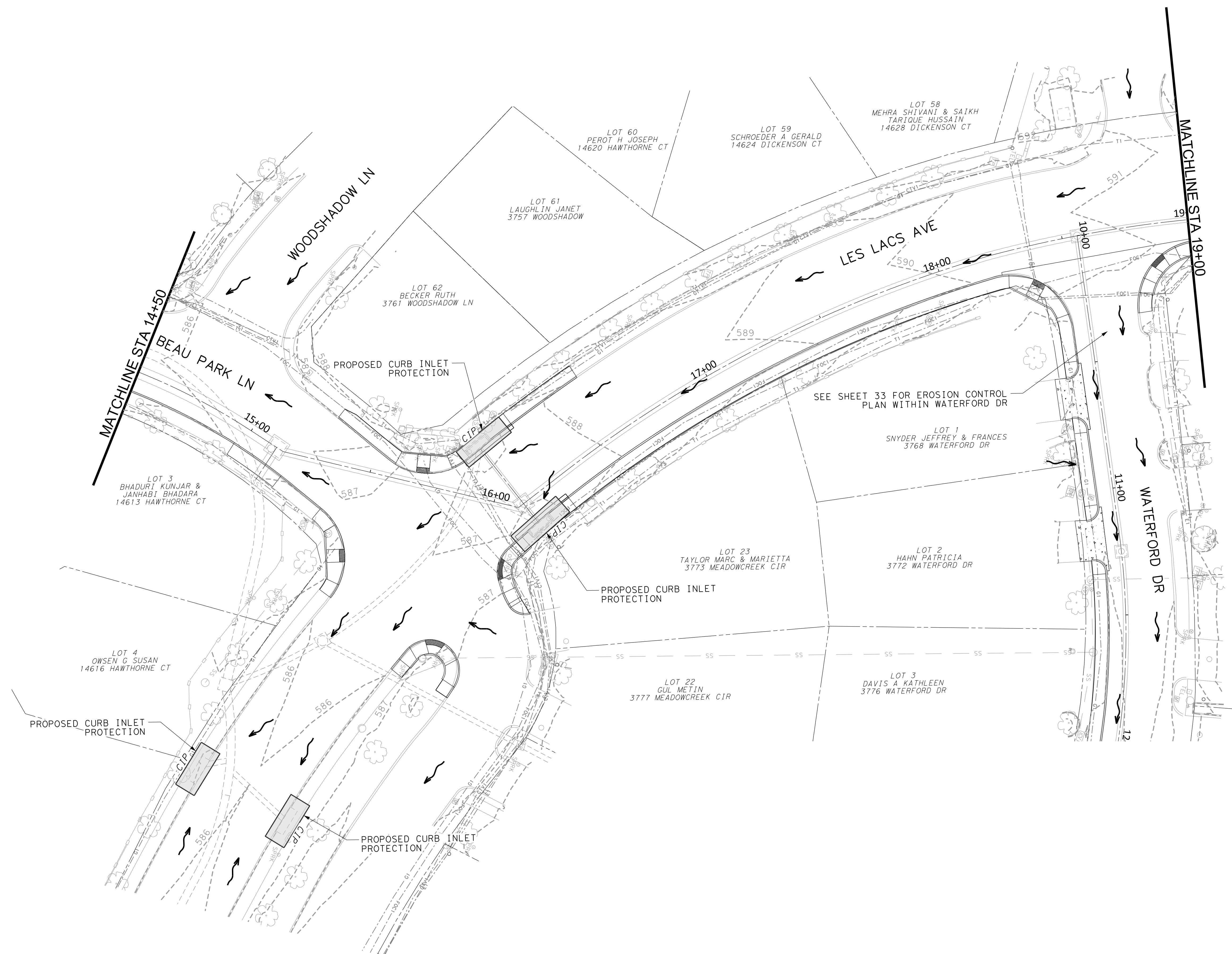
**EROSION CONTROL PLAN
SD LINE 'A' BEGIN TO STA. 14+50
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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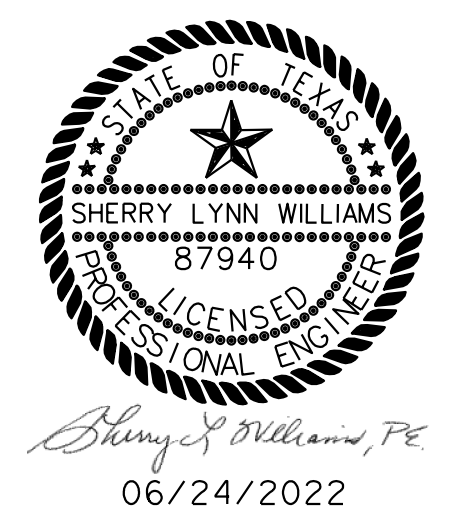
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- LEGEND:**
- CIP
 - SURFACE FLOW DIRECTION
 - EXISTING CONTOURS

- NOTES:**
1. SEE SW3P SHEET FOR MORE INFORMATION AND NOTES.
 2. COORDINATE SW3P BMP INSTALLATION SEQUENCE WITH OVERALL PHASING PLAN; SEE OVERALL PHASING PLAN SHEET FOR ADDITIONAL INFORMATION.
 3. CONTRACTOR SHALL ADJUST LOCATION OF CONSTRUCTION ENTRANCES DEPENDING ON CONSTRUCTION SEQUENCE PHASING TO PROVIDE EXIT FROM ANY ACTIVE DISTURBED AREA.



REV. NO.	DATE	DESCRIPTION	BY
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2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
Civil Engineering | Land Surveying | Subsurface Utility Engineering | ROW | CE&I
 FIRM NO. F-4373

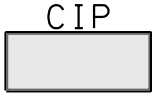


EROSION CONTROL PLAN
SD LINE 'A' STA 14+50 TO STA 19+00
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		48

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0 10 20 30 40
HORIZONTAL SCALE IN FEET

- LEGEND:
-  CIP
 -  SURFACE FLOW DIRECTION
 -  EXISTING CONTOURS

- NOTES:
- SEE SW3P SHEET FOR MORE INFORMATION AND NOTES.
 - COORDINATE SW3P BMP INSTALLATION SEQUENCE WITH OVERALL PHASING PLAN; SEE OVERALL PHASING PLAN SHEET FOR ADDITIONAL INFORMATION.
 - CONTRACTOR SHALL ADJUST LOCATION OF CONSTRUCTION ENTRANCES DEPENDING ON CONSTRUCTION SEQUENCE PHASING TO PROVIDE EXIT FROM ANY ACTIVE DISTURBED AREA.



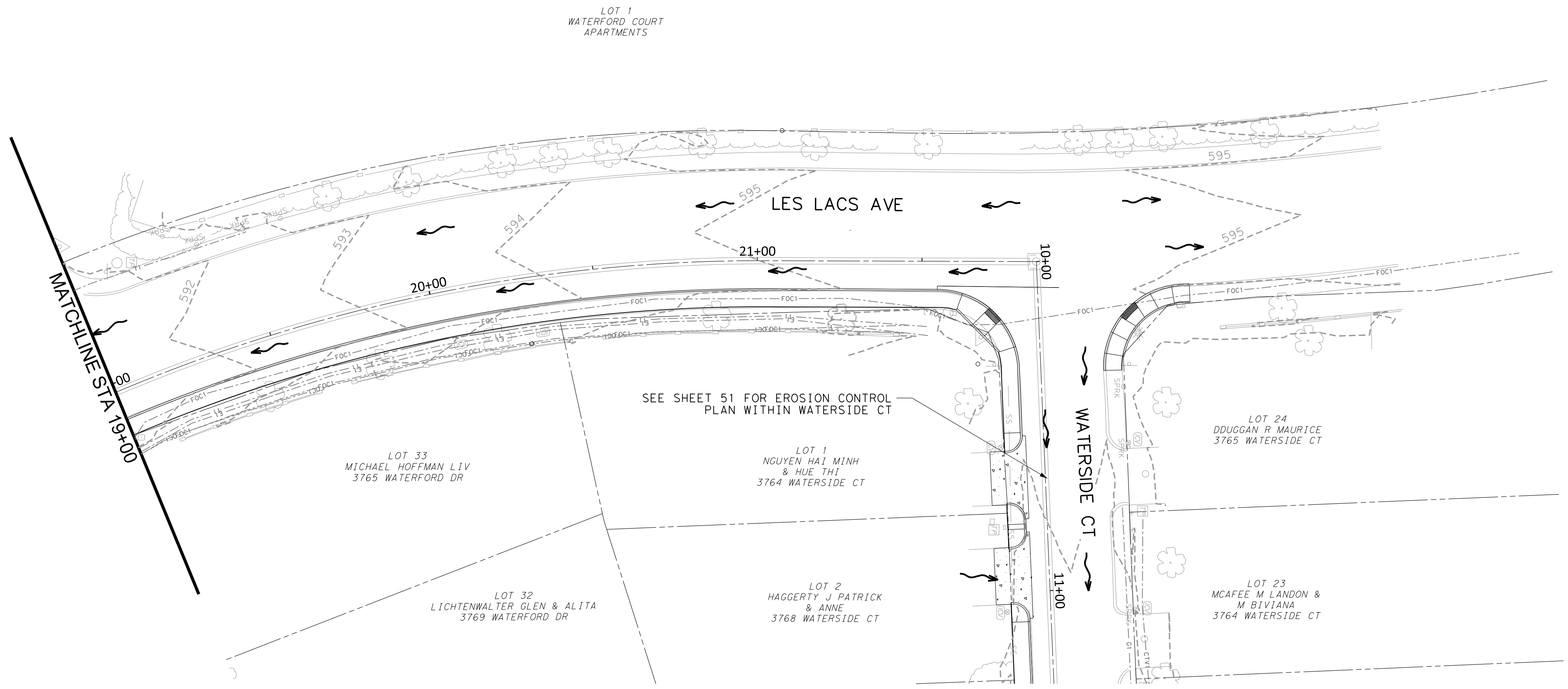
REV. NO.	DATE	DESCRIPTION	BY
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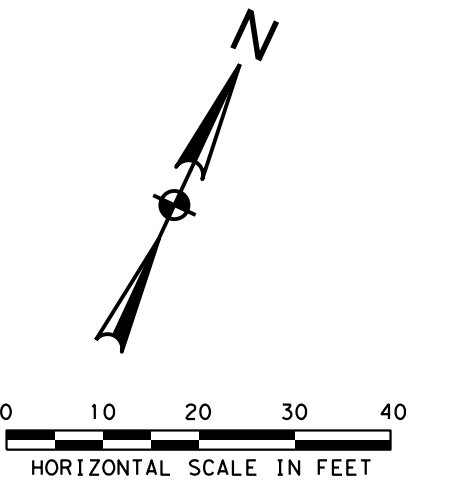
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

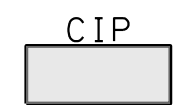



**EROSION CONTROL PLAN
SD LINE 'A' STA 19+00 TO END
ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		49



9:45:03 PM
 6/23/2022
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- LEGEND:
-  CIP
 -  CURB INLET PROTECTION
 -  SURFACE FLOW DIRECTION
 -  EXISTING CONTOURS

- NOTES:
1. SEE SW3P SHEET FOR MORE INFORMATION AND NOTES.
 2. COORDINATE SW3P BMP INSTALLATION SEQUENCE WITH OVERALL PHASING PLAN; SEE OVERALL PHASING PLAN SHEET FOR ADDITIONAL INFORMATION.
 3. CONTRACTOR SHALL ADJUST LOCATION OF CONSTRUCTION ENTRANCES DEPENDING ON CONSTRUCTION SEQUENCE PHASING TO PROVIDE EXIT FROM ANY ACTIVE DISTURBED AREA.



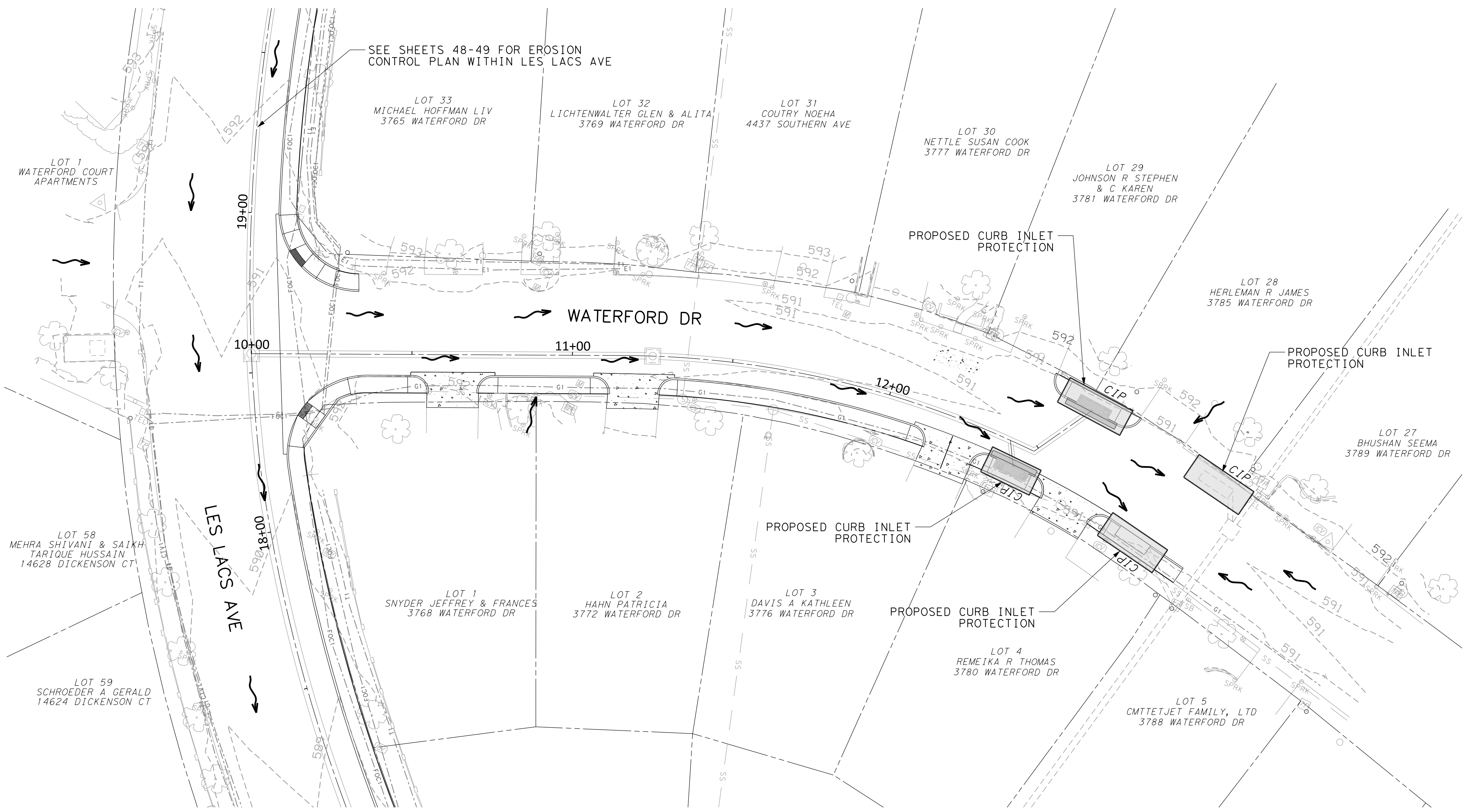
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

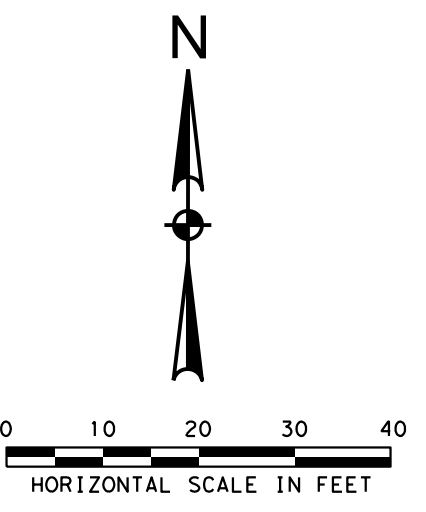
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 SD LINE 'B' BEGIN TO END
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS**

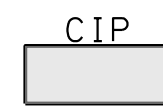



DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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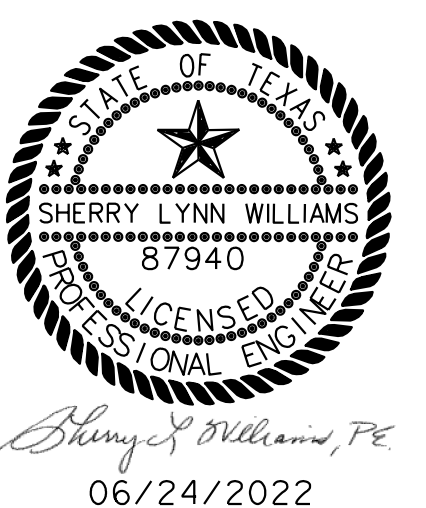
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- LEGEND:
-  CIP
 -  CURB INLET PROTECTION
 -  SURFACE FLOW DIRECTION
 -  EXISTING CONTOURS

- NOTES:
1. SEE SW3P SHEET FOR MORE INFORMATION AND NOTES.
 2. COORDINATE SW3P BMP INSTALLATION SEQUENCE WITH OVERALL PHASING PLAN; SEE OVERALL PHASING SHEET FOR ADDITIONAL INFORMATION.
 3. CONTRACTOR SHALL ADJUST LOCATION OF CONSTRUCTION ENTRANCES DEPENDING ON CONSTRUCTION SEQUENCE PHASING TO PROVIDE EXIT FROM ANY ACTIVE DISTURBED AREA.



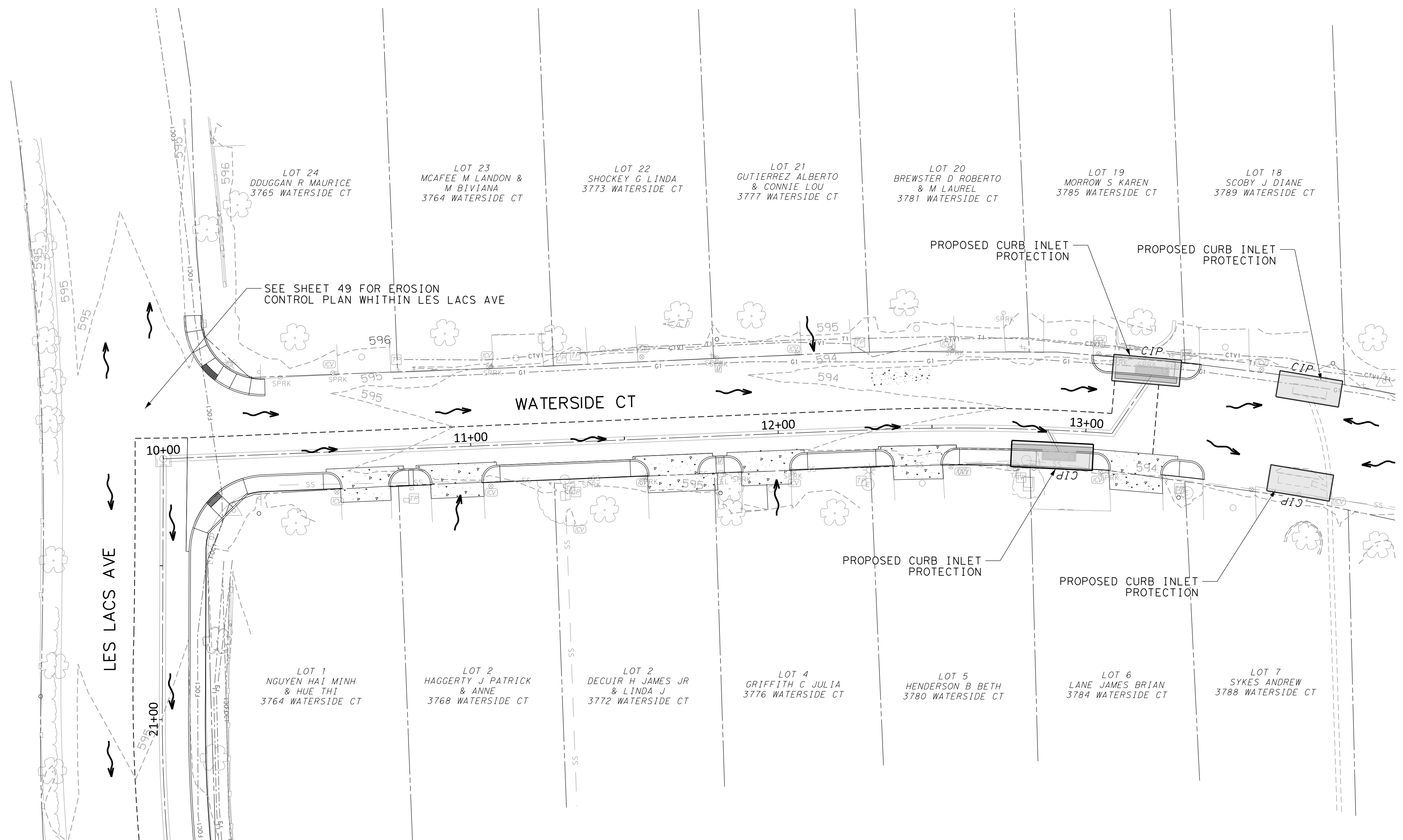
REV. NO.	DATE	DESCRIPTION	BY
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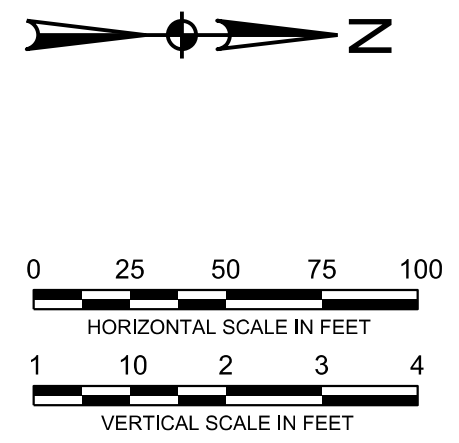
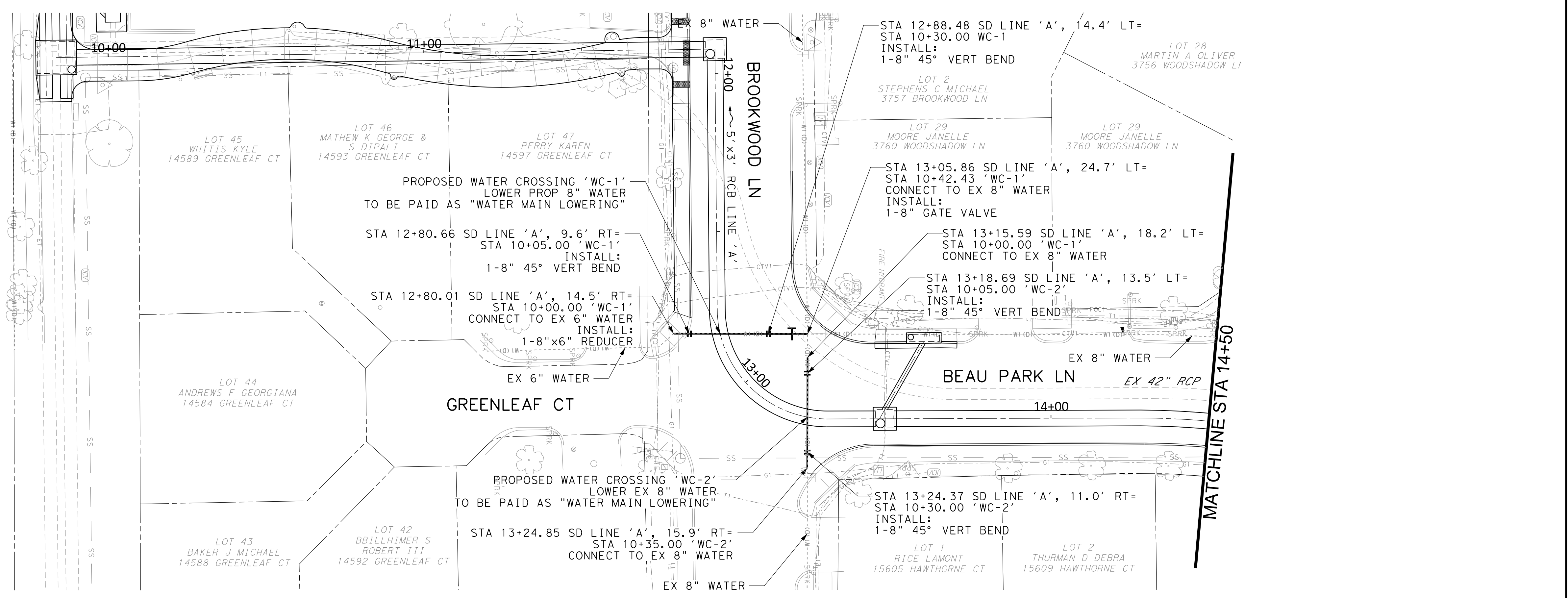
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

**EROSION CONTROL PLAN
 SD LINE 'C' BEGIN TO END
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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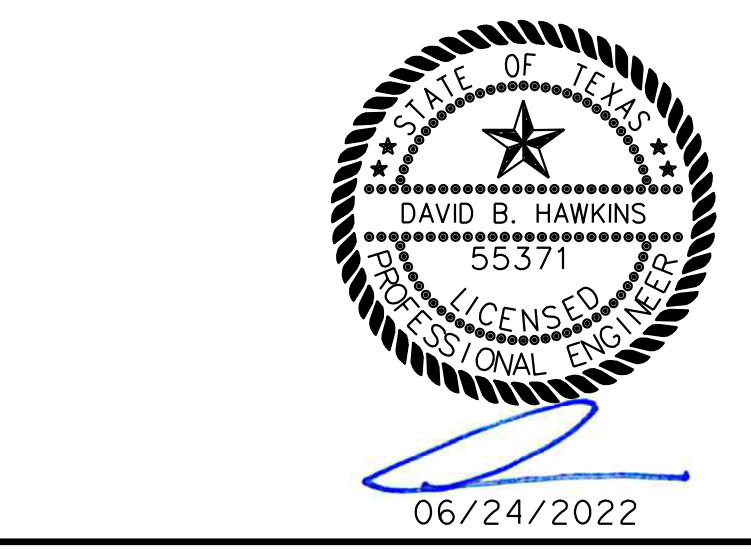
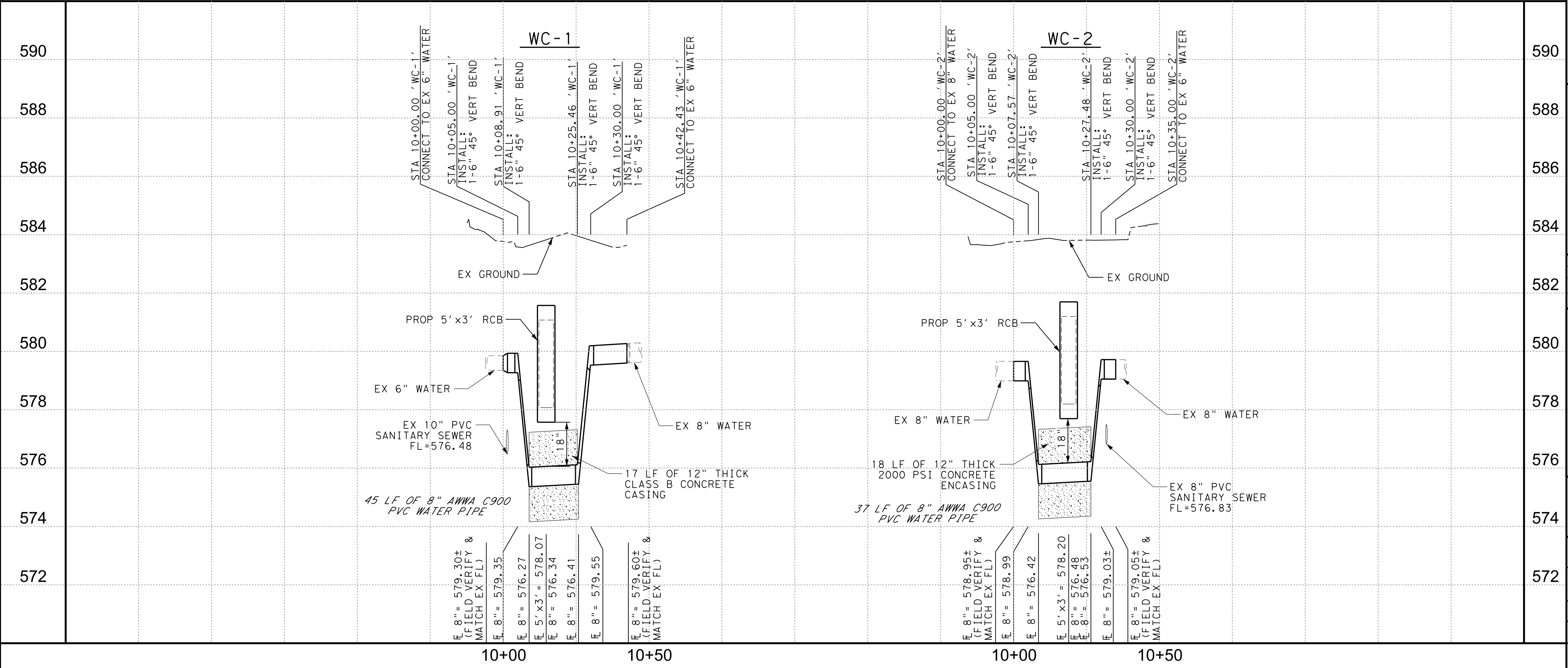
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LEGEND

- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING INLET
- EXISTING SANITARY SEWER
- EXISTING WATER

- NOTES:**
- UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION
 - CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES PRIOR TO EXCAVATION
 - REFER TO STANDARD WATER DETAIL SHEETS FOR ADDITIONAL INFORMATION REGARDING PIPE EMBEDMENT, BACKFILL, AND WATER IMPROVEMENTS



REV NO.	DATE	DESCRIPTION	BY
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2			

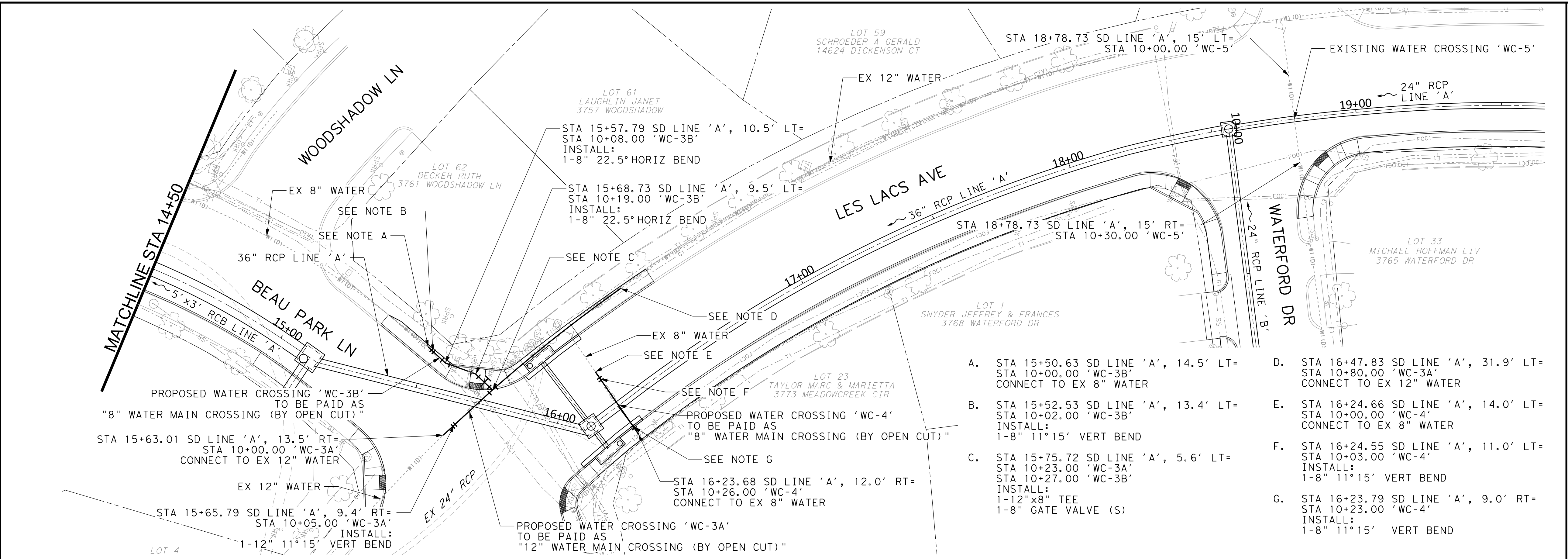


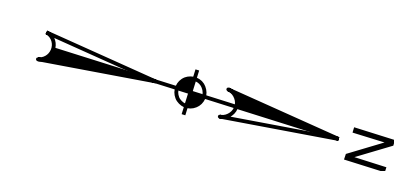
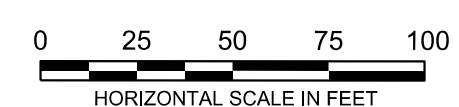
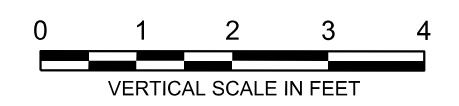
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

WATER CROSSING DETAILS						
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		52

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LEGEND

- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING INLET
- EXISTING SANITARY SEWER
- EXISTING WATER

NOTES:

- UNLESS NOTED, UTILITY CROSSING LOCATIONS BASED ON ASSUMED DEPTHS AND SHALL BE UNCOVERED AND VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION
- CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES PRIOR TO EXCAVATION
- REFER TO STANDARD WATER DETAIL SHEETS FOR ADDITIONAL INFORMATION REGARDING PIPE EMBEDMENT, BACKFILL, AND WATER IMPROVEMENTS

ELEVATION	WC-3A	WC-3B	WC-4	WC-5	STATION
594	CONNECT TO EX 12" WATER STA 10+00.00 'WC-3A'	CONNECT TO EX 8" WATER STA 10+00.00 'WC-3B'	CONNECT TO EX 8" WATER STA 10+00.00 'WC-4'	NOTE: CONTRACTOR TO PERFORM EXPLORATORY EXCAVATION "D-HOLE" OF EXISTING 8" PVC WATER MAIN PRIOR TO START OF CONSTRUCTION TO CONFIRM THERE IS NO VERTICAL CONFLICT. IF LESS THAN A MINIMUM OF 12-IN O.D. -- 0-D; VERTICAL CLEARANCE IS FOUND, CONSTRUCT WATER LOWERING AS PER STANDARD DETAIL.	594
592	INSTALL: 1-12" 11°45' VERT BEND STA 10+05.00 'WC-3A'	INSTALL: 1-8" 11°15' VERT BEND STA 10+02.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+03.00 'WC-4'		592
590	INSTALL: 1-12" 11°45' VERT BEND STA 10+11.91 'WC-3A'	INSTALL: 1-8" 11°15' VERT BEND STA 10+04.22 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+07.23 'WC-4'		590
588	INSTALL: 1-12" 11°45' VERT BEND STA 10+23.00 'WC-3A'	INSTALL: 1-8" 22.5° HORIZ BEND STA 10+19.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+19.26 'WC-4'		588
586	INSTALL: 1-12" 11°45' VERT BEND STA 10+27.00 'WC-3A'	INSTALL: 1-8" 22.5° HORIZ BEND STA 10+19.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+23.00 'WC-4'		586
584	INSTALL: 1-12" 11°45' VERT BEND STA 10+30.00 'WC-3A'	INSTALL: 1-8" 22.5° HORIZ BEND STA 10+19.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+26.00 'WC-4'		584
582	INSTALL: 1-12" 11°45' VERT BEND STA 10+30.00 'WC-3A'	INSTALL: 1-8" 22.5° HORIZ BEND STA 10+19.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+26.00 'WC-4'		582
580	INSTALL: 1-12" 11°45' VERT BEND STA 10+30.00 'WC-3A'	INSTALL: 1-8" 22.5° HORIZ BEND STA 10+19.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+26.00 'WC-4'		580
578	INSTALL: 1-12" 11°45' VERT BEND STA 10+30.00 'WC-3A'	INSTALL: 1-8" 22.5° HORIZ BEND STA 10+19.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+26.00 'WC-4'		578
576	INSTALL: 1-12" 11°45' VERT BEND STA 10+30.00 'WC-3A'	INSTALL: 1-8" 22.5° HORIZ BEND STA 10+19.00 'WC-3B'	INSTALL: 1-8" 11°15' VERT BEND STA 10+26.00 'WC-4'		576


 06/24/2022

REV NO.	DATE	DESCRIPTION	BY
1			




 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

WATER CROSSING DETAILS

ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		53

PLANTING GENERAL NOTES

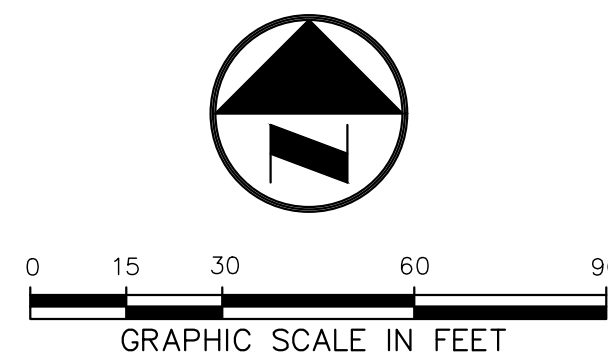
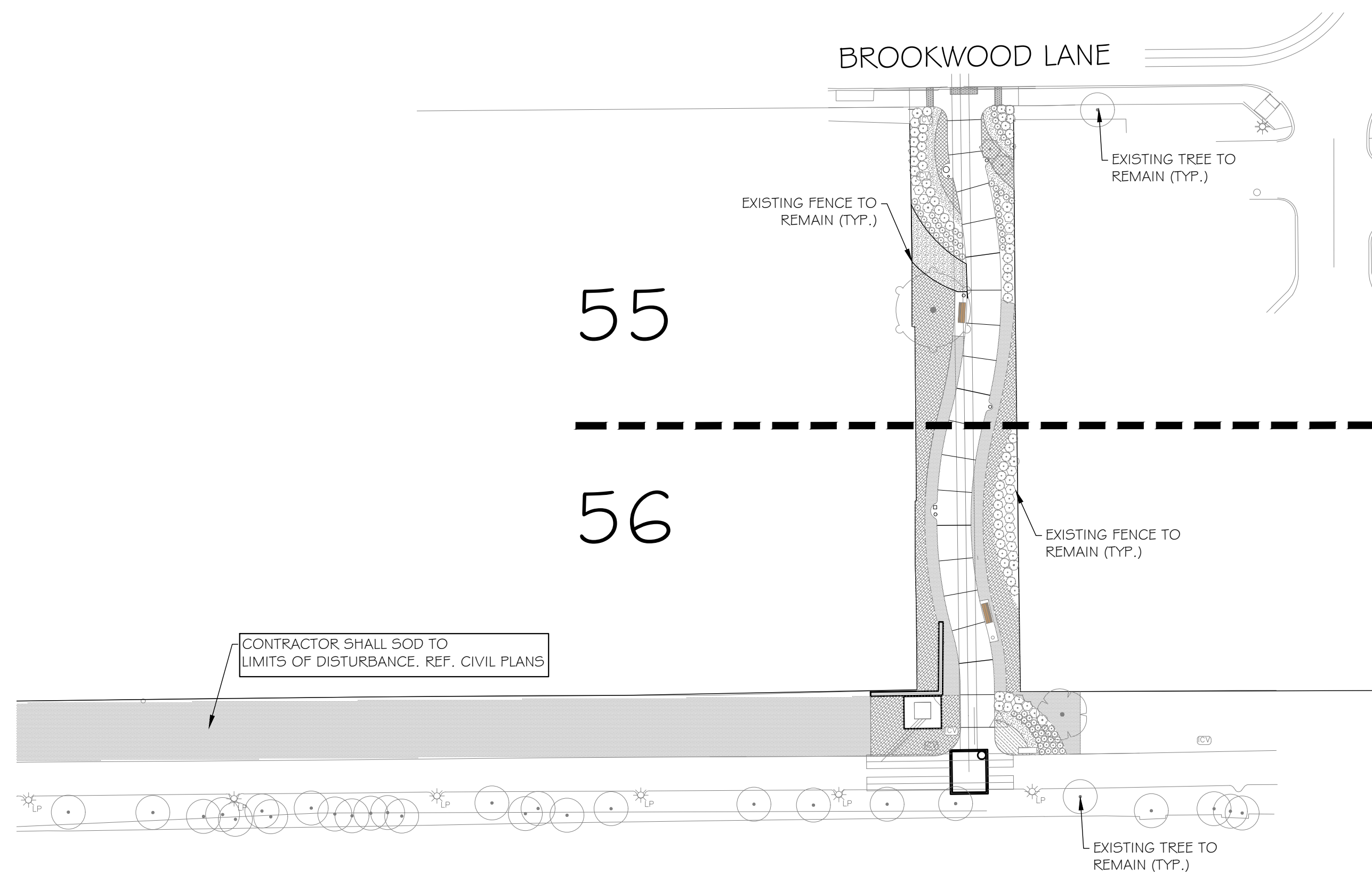
- ALL PLANTS SHALL BE SET OUT FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- FINE GRADING SHALL BE PERFORMED IN ALL AREAS TO BE LANDSCAPED. FINE GRADING SHALL INCLUDE THE REMOVAL OF DEBRIS, ROCKS, ETC. FROM THE SITE AND INSURE POSITIVE DRAINAGE IN ALL AREAS.
- THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND EASEMENTS IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES DURING THE COURSE OF CONSTRUCTION.
- WRITTEN DIMENSIONS SHALL GOVERN OVER SCALED DIMENSIONS.
- THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS ASSOCIATED WITH THE LANDSCAPE AND ACCESSORIES.
- ALL PLANT MATERIALS SHALL MEET ANSI Z60.1 STANDARDS FOR CALIPER, HEIGHT AND ROOT BALL SIZE. ANY MATERIALS THAT DO NOT MEET OR EXCEED SUCH STANDARDS SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- BALLED AND BURLAPPED TREES SHALL HAVE THE TOP HALF OF THE WIRE BASKET REMOVED. THE BURLAP SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE, USING A KNIFE TO CUT AND REMOVE THE BOTTOM HALF UNDER THE WIRE BASKET THAT REMAINS.
- QUANTITIES ARE SHOWN FOR CONVENIENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES.
- ALL PLANTING SHALL HAVE A FULLY AUTOMATED IRRIGATION SYSTEM.

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	SIZE/COND.	REMARKS	
	EXISTING TREE		EXISTING TREE TO REMAIN, (TYP.)	
AT2	ACER TRUNCATUM SHANTUNG MAPLE	B # B	3" CAL. MIN., SINGLE, STRAIGHT LEADER	
ORNAMENTAL TREES	BOTANICAL / COMMON NAME	SIZE/COND.	REMARKS	
AB	ACER PALMATUM 'BLOODGOOD' BLOODGOOD JAPANESE MAPLE	45 GAL	MULTI-TRUNK, MATCHING	
VC2	VITEX AGNIUS-CASTUS CHASTE TREE	45 GAL	MULTI-TRUNK, MATCHING	
SHRUBS	BOTANICAL / COMMON NAME	SIZE	REMARKS	
AV2	AUCUBA JAPONICA 'VARIEGATA NANA' DWARF VARIEGATED JAPANESE LAUREL	5 GAL	FULL, MATCHING	
CF	CYRTOMIUM FALCATUM HOLLY FERN	5 GAL	FULL, MATCHING	
IS3	ILEX VOMITORIA 'STOKES DWARF' STOKES DWARF YAUPON HOLLY	5 GAL	FULL, MATCHING	
NL	NANDINA DOMESTICA 'LEMON LIME' LEMON LIME HEAVENLY BAMBOO	5 GAL	FULL, MATCHING	
SHRUB AREAS	BOTANICAL / COMMON NAME	SIZE	SPACING	REMARKS
AR	AJUGA REPTANS CARPET BUGLE	1 GAL	9" o.c.	FULL, MATCHING, PET URINE RESISTANT
LH2	LANTANA X 'NEW GOLD' NEW GOLD LANTANA	1 GAL	24" o.c.	FULL, MATCHING
GROUND COVERS	BOTANICAL / COMMON NAME	SIZE	SPACING	REMARKS
EFC	EUONYMUS FORTUNEI 'COLORATUS' COLORATUS PURPLE WINTERCREEPER	1 GAL	12" o.c.	FULL, MATCHING, PET URINE RESISTANT
LV	LIRIOPE MUSCARI 'VARIEGATA' VARIEGATED LILYTURF	1 GAL	12" o.c.	FULL, MATCHING
SOD/SEED	BOTANICAL / COMMON NAME	SIZE	SPACING	REMARKS
ZP	ZOYSIA X 'PALISADES' PALISADES ZOYSIA	SOD		SOLID, ROLLED TIGHT, SAND FILLED JOINTS, 100% WEED, PEST AND DISEASE FREE

HARDSCAPE SCHEDULE

SYMBOL	DESCRIPTION	DETAIL
①	STEEL EDGING	4/L1.03
②	3G GALLON TRASH RECEPTACLE BY: VICTOR STANLEY OR APPROVED EQUAL ITEM S-42 COLOR: BLACK	2/L1.04
③	STANDARD TOWN BOLLARD TYPE: ELEMENT BOLLARD BY: LUMEN PULSE COLOR: TEXTURED BRONZE LIGHT: LED LIGHT COLOR 57K	3/L1.04
④	STANDARD 6" TOWN BENCH BY: VICTOR STANLEY OR APPROVED EQUAL ITEM RB-28 COLOR: BLACK	1/L1.04
⑤	TOWN STANDARD TRAIL SIGNAGE (TBD)	
⑥	PET WASTE STATION BY: MUTT MITT SKU/PRODUCT #: 1004 COLOR: GREEN	PER MANUFACTURER



1 PLANTING PLAN
1" = 30'-0"



REVISIONS			
REV NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

OVERALL LANDSCAPE PLAN
ADDISON RAWHIDE BASIN
DRAINAGE IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
AMD	AET	JUNE 2022	AS SHOWN			54

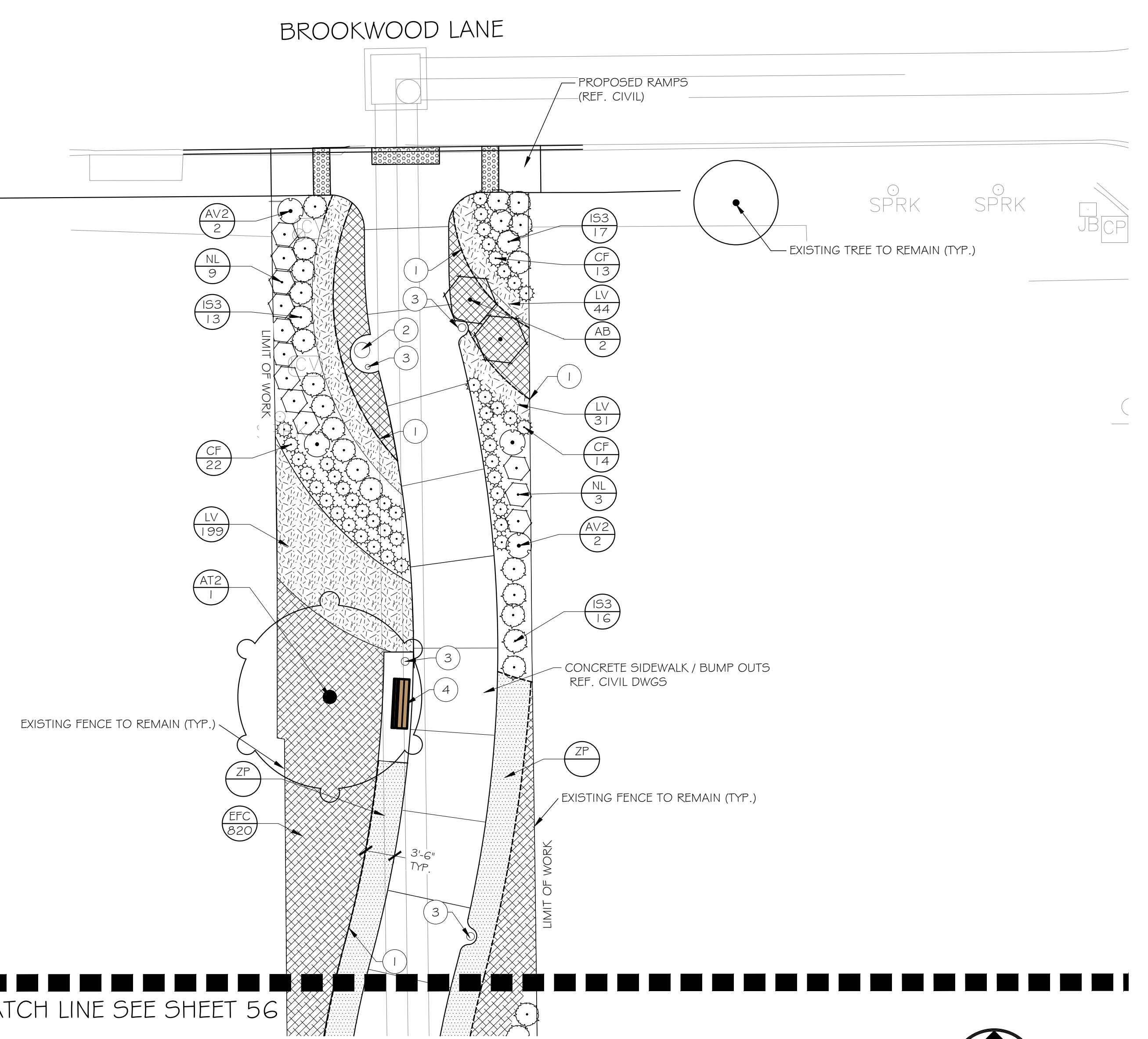
PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME
		EXISTING TREE
	AT2	ACER TRUNCATUM SHANTUNG MAPLE
ORNAMENTAL TREES	CODE	BOTANICAL / COMMON NAME
	AB	ACER PALMATUM 'BLOODGOOD' BLOODGOOD JAPANESE MAPLE
	VC2	VITEX AGNIUS-CASTUS CHASTE TREE
SHRUBS	CODE	BOTANICAL / COMMON NAME
	AV2	AUCUBA JAPONICA 'VARIEGATA NANA' DWARF VARIEGATED JAPANESE LAUREL
	CF	CYRTOMIUM FALCATUM HOLLY FERN
	IS3	ILEX VOMITORIA 'STOKES DWARF' STOKES DWARF YAUPON HOLLY
	NL	NANDINA DOMESTICA 'LEMON LIME' LEMON LIME HEAVENLY BAMBOO
SHRUB AREAS	CODE	BOTANICAL / COMMON NAME
	AR	AJUGA REPTANS CARPET BUGLE
	LH2	LANTANA X 'NEW GOLD' NEW GOLD LANTANA
GROUND COVERS	CODE	BOTANICAL / COMMON NAME
	EFC	EUONYMUS FORTUNEI 'COLORATUS' COLORATUS PURPLE WINTERCREEPER
	LV	LIRIOPE MUSCARI 'VARIEGATA' VARIEGATED LILYTURF
SOD/SEED	CODE	BOTANICAL / COMMON NAME
	ZP	ZOYSIA X 'PALISADES' PALISADES ZOYSIA

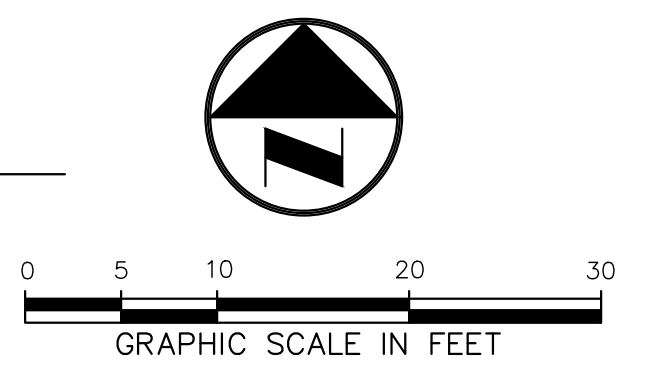
REFERENCE SHEET LI.00 FOR FULL SCHEDULE

HARDSCAPE SCHEDULE

SYMBOL	DESCRIPTION
1	STEEL EDGING
2	36 GALLON TRASH RECEPTACLE BY: VICTOR STANLEY OR APPROVED EQUAL ITEM S-42 COLOR: BLACK
3	STANDARD TOWN BOLLARD TYPE: ELEMENT BOLLARD BY: LUMEN PULSE COLOR: TEXTURED BRONZE LIGHT: LED LIGHT COLOR 57K
4	STANDARD G' TOWN BENCH BY: VICTOR STANLEY OR APPROVED EQUAL ITEM RB-28 COLOR: BLACK
5	TOWN STANDARD TRAIL SIGNAGE (TBD)
6	PET WASTE STATION BY: MUTT MITT SKU/PRODUCT #: 1004 COLOR: GREEN



1 LANDSCAPE PLAN
1" = 10'-0"



REVISIONS			
REV NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

LANDSCAPE PLAN
ADDISON RAWHIDE BASIN
DRAINAGE IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
AMD	AET	JUNE 2022	AS SHOWN			55

PLANT SCHEDULE

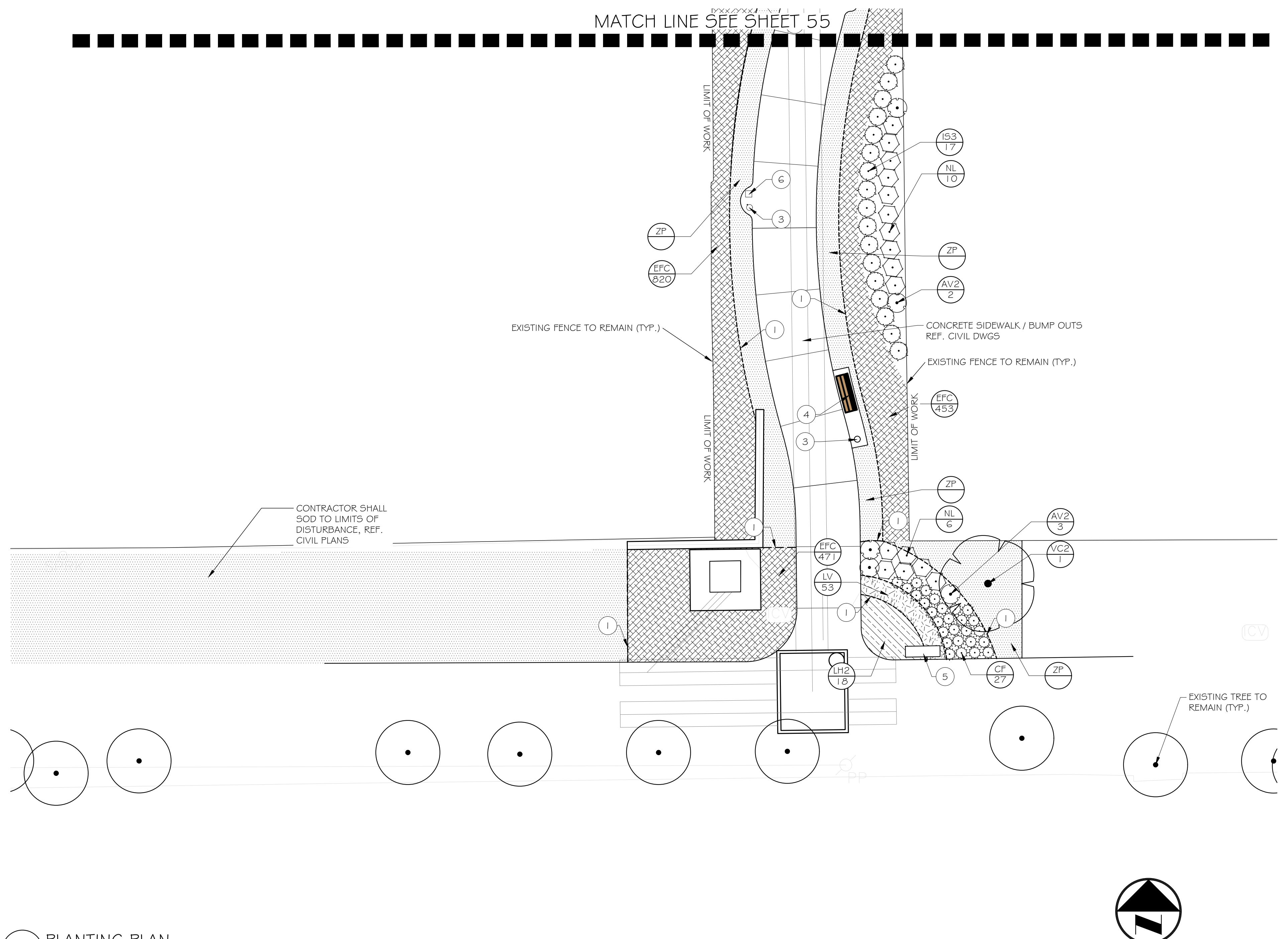
TREES	CODE	BOTANICAL / COMMON NAME
		EXISTING TREE
	AT2	ACER TRUNCATUM SHANTUNG MAPLE
ORNAMENTAL TREES	CODE	BOTANICAL / COMMON NAME
	AB	ACER PALMATUM 'BLOODGOOD' BLOODGOOD JAPANESE MAPLE
	VC2	VITEX AGNUS-CASTUS CHASTE TREE
SHRUBS	CODE	BOTANICAL / COMMON NAME
	AV2	AUCUBA JAPONICA 'VARIEGATA NANA' DWARF VARIEGATED JAPANESE LAUREL
	CF	CYRTOMIUM FALCATUM HOLLY FERN
	IS3	ILEX VOMITORIA 'STOKES DWARF' STOKES DWARF YAUPOH HOLLY
	NL	NANDINA DOMESTICA 'LEMON LIME' LEMON LIME HEAVENLY BAMBOO
SHRUB AREAS	CODE	BOTANICAL / COMMON NAME
	AR	AJUGA REPTANS CARPET BUGLE
	LH2	LANTANA X 'NEW GOLD' NEW GOLD LANTANA
GROUND COVERS	CODE	BOTANICAL / COMMON NAME
	EFC	EUONYMUS FORTUNEI 'COLORATUS' COLORATUS PURPLE WINTERCREEPER
	LV	LIRIOPE MUSCARI 'VARIEGATA' VARIEGATED LILYTURF
SOD/SEED	CODE	BOTANICAL / COMMON NAME
	ZP	ZOYSIA X 'PALISADES' PALISADES ZOYSIA

REFERENCE SHEET LI .00 FOR FULL SCHEDULE

HARDSCAPE SCHEDULE

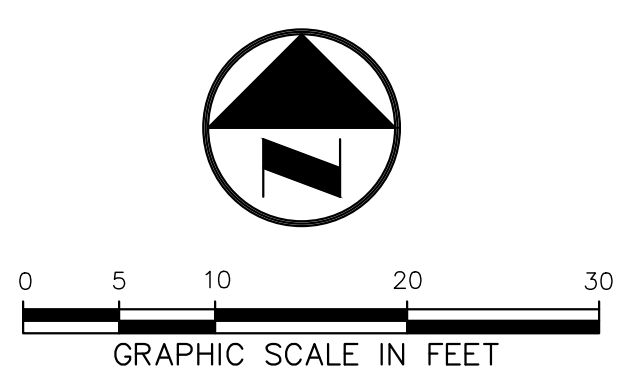
SYMBOL	DESCRIPTION
1	STEEL EDGING
2	36 GALLON TRASH RECEPTACLE BY: VICTOR STANLEY OR APPROVED EQUAL ITEM 5-42 COLOR: BLACK
3	STANDARD TOWN BOLLARD TYPE: ELEMENT BOLLARD BY: LUMEN PULSE COLOR: TEXTURED BRONZE LIGHT: LED LIGHT COLOR 57K
4	STANDARD 6' TOWN BENCH BY: VICTOR STANLEY OR APPROVED EQUAL ITEM RB-28 COLOR: BLACK
5	TOWN STANDARD TRAIL SIGNAGE (TBD)
6	PET WASTE STATION BY: MUTT MITT SKU/PRODUCT #: 1 004 COLOR: GREEN

MATCH LINE SEE SHEET 55



CONTRACTOR SHALL SOD TO LIMITS OF DISTURBANCE, REF. CIVIL PLANS

1 PLANTING PLAN
1" = 10'-0"



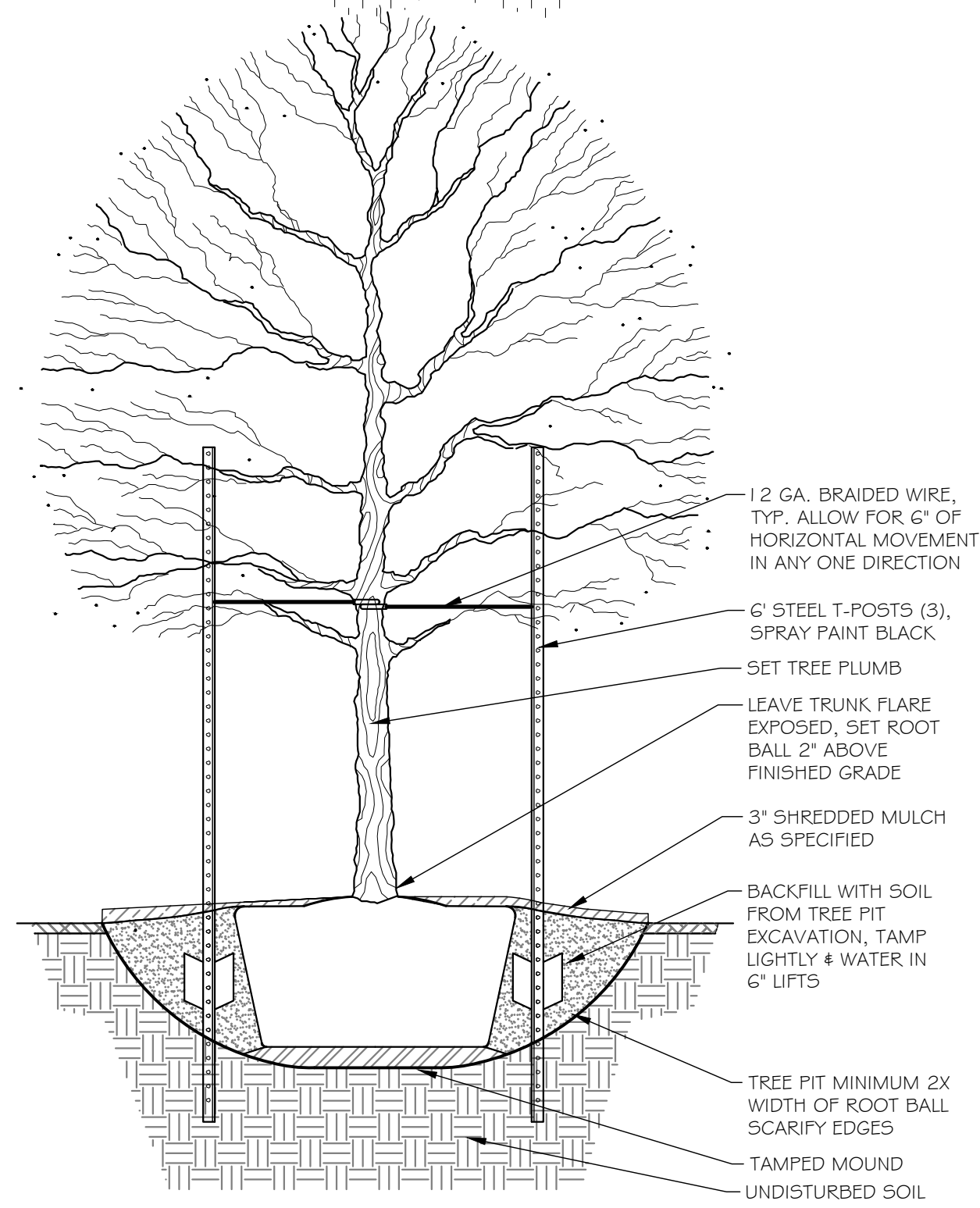
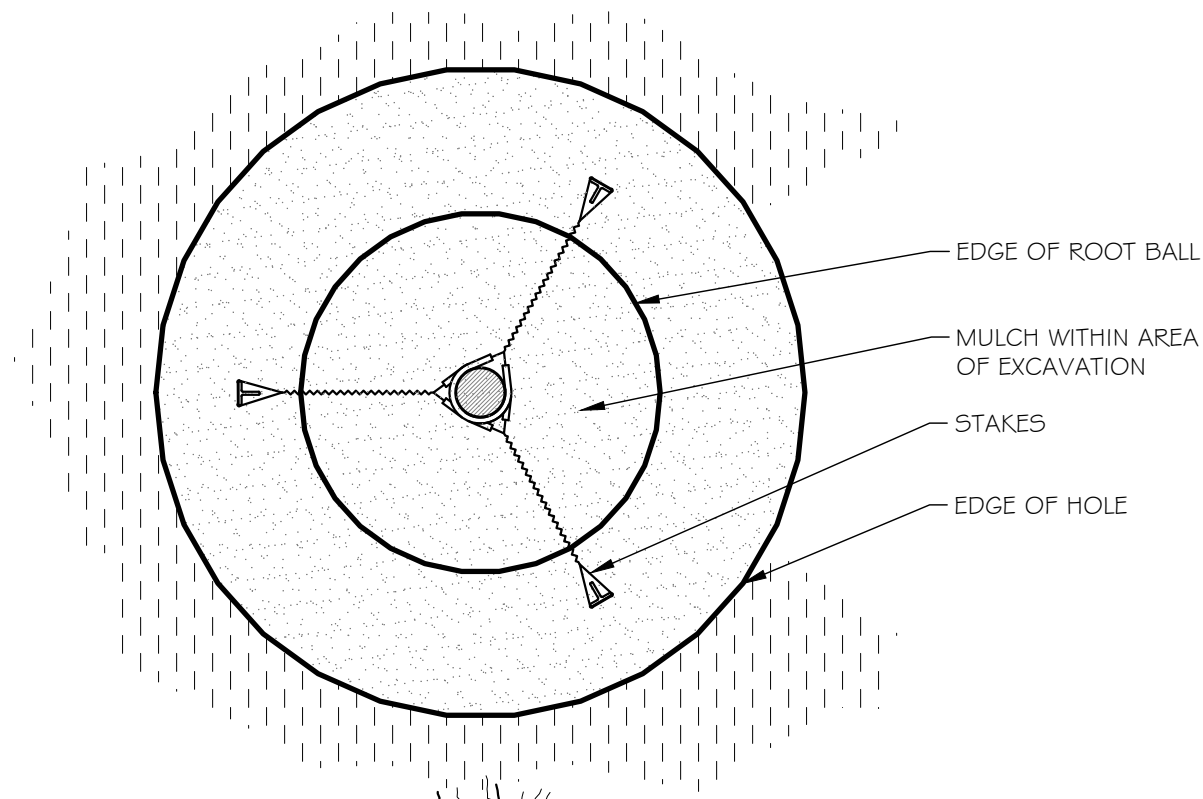
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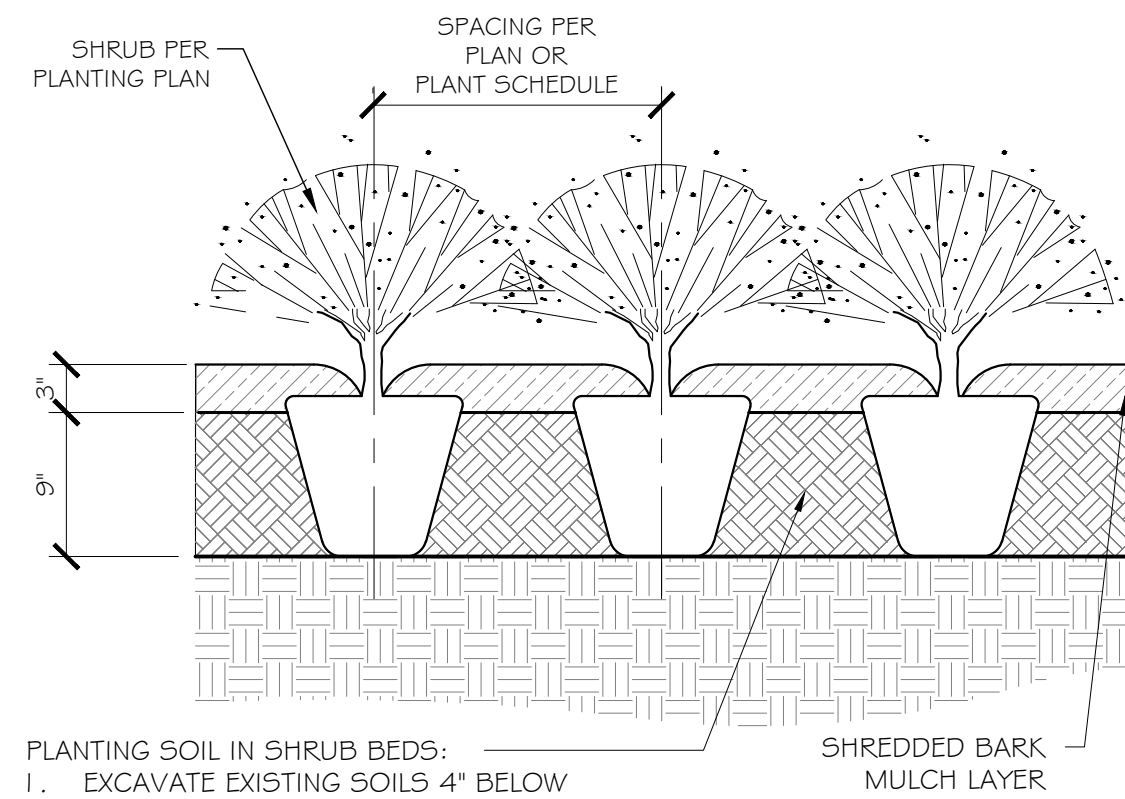
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

LANDSCAPE PLAN
ADDISON RAWHIDE BASIN
DRAINAGE IMPROVEMENTS
TOWN OF ADDISON, TEXAS

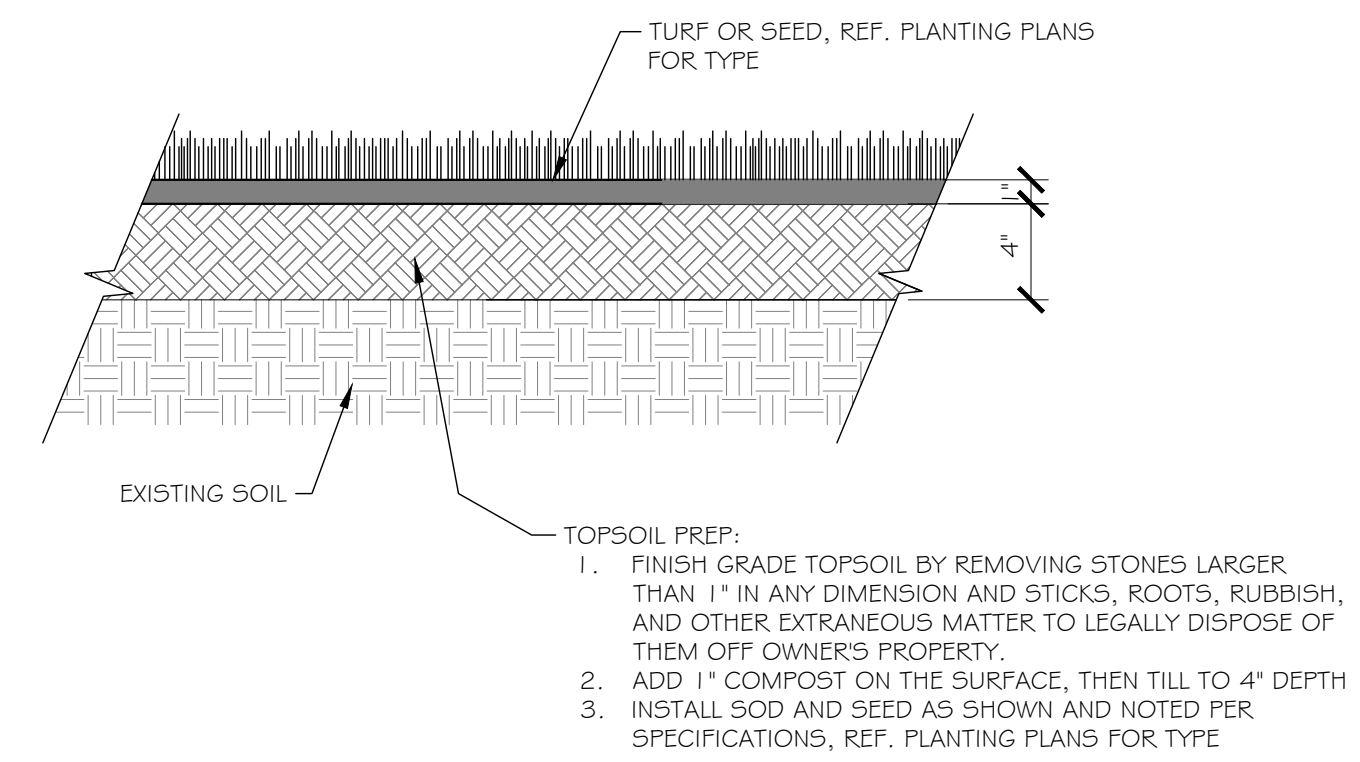
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AMD	AET	JUNE 2022	AS SHOWN			56



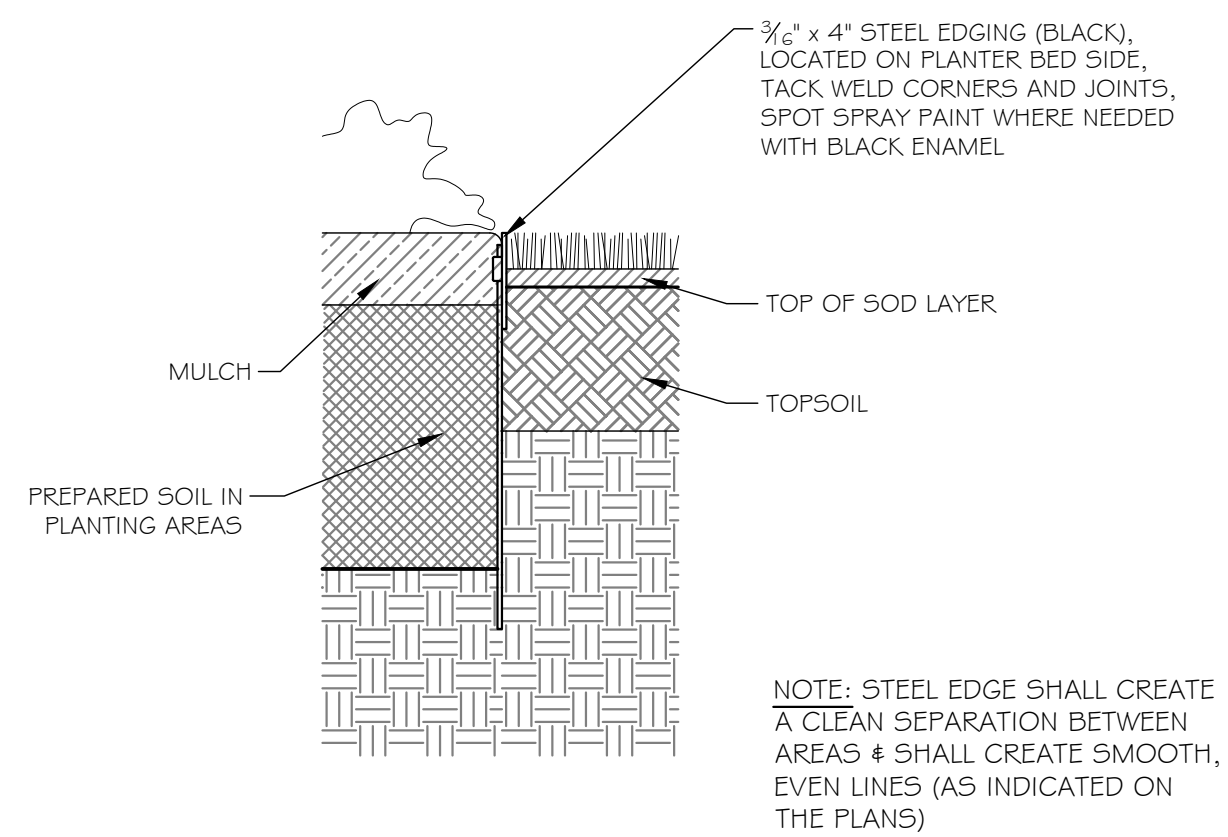
1 CANOPY TREE PLANTING
3/4" = 1'-0"



2 TYP. SHRUB PLANTING
1" = 1'-0"



3 SOIL PROFILE FOR SOD & SEED
1 1/2" = 1'-0"



4 STEEL EDGING AT PLANTING
1 1/2" = 1'-0"



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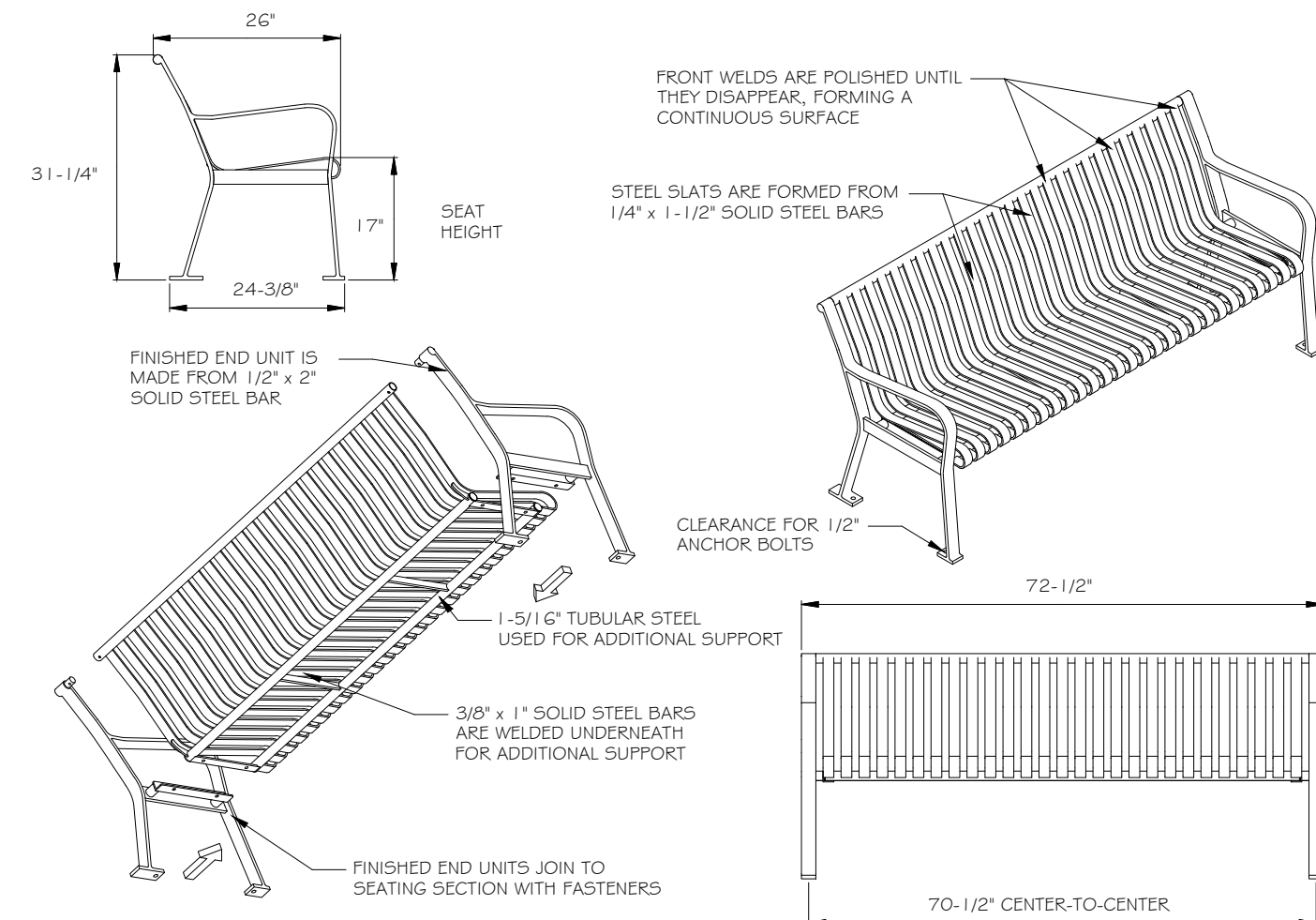
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
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LANDSCAPE DETAILS
ADDISON RAWHIDE BASIN
DRAINAGE IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
AMD	AET	JUNE 2022	AS SHOWN			57

Create a timeless moment.®

* ALL DIMENSIONS ARE IN INCHES *



AVAILABLE OPTIONS:
POWDER COATING
10 STANDARD COLORS, 2 OPTIONAL METALLIC COLORS, CUSTOM COLORS (INCLUDING THE RAL RANGE)
INTERMEDIATE & CENTER ARMRESTS
4", 6", & 8" AVAILABLE WITH OPTIONAL SOLID STEEL ARMRESTS

LENGTHS:
STANDARD 4'
STANDARD 6' (AS SHOWN)
STANDARD 8'

ALL STEEL CONToured BENCH SHOWN: STANDARD 6-FOOT LENGTH

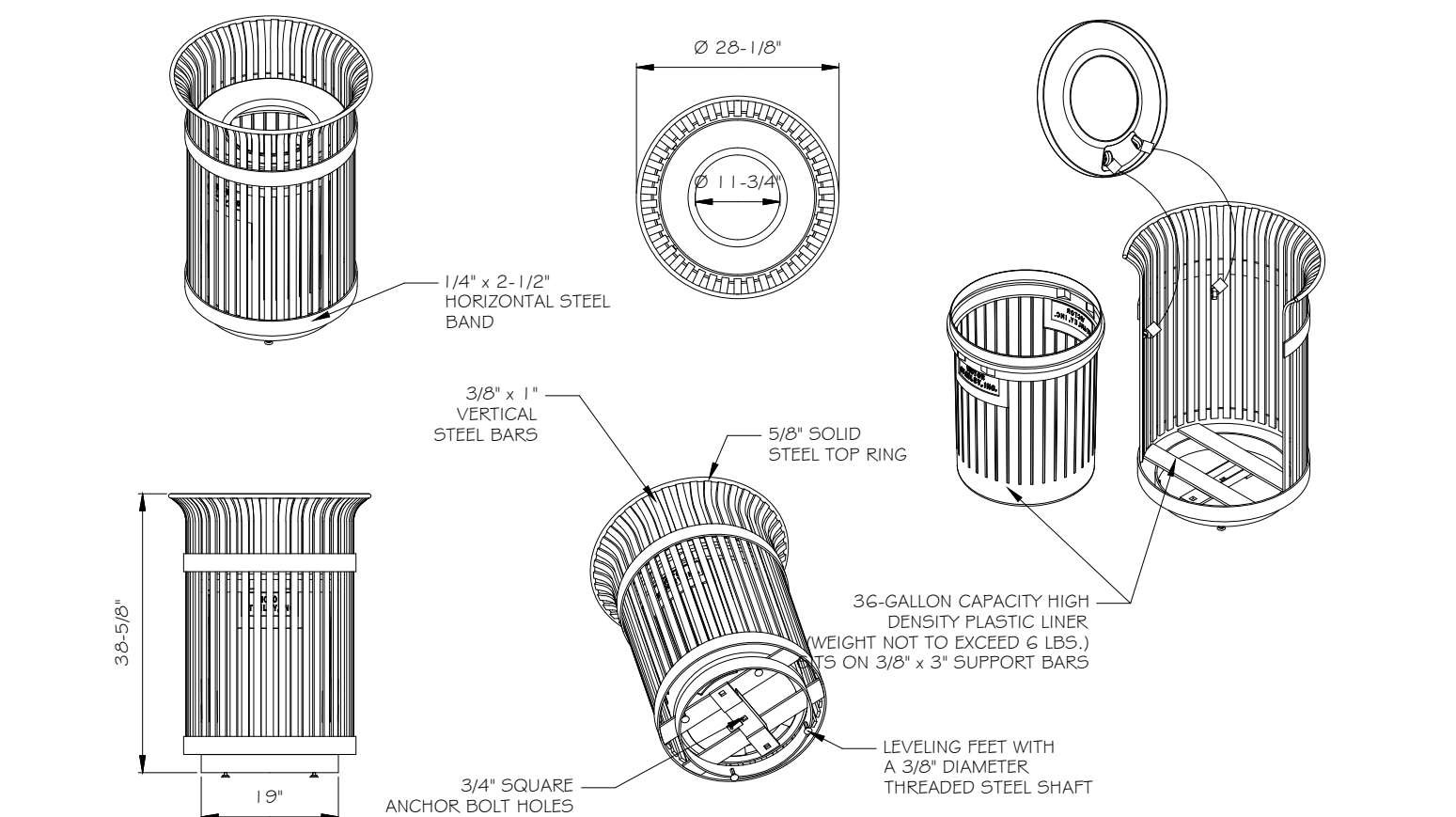
- NOTES:
1. DRAWINGS NOT TO SCALE. DO NOT SCALE DRAWINGS.
2. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS).
3. IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
4. ANCHOR BOLTS NOT PROVIDED BY VICTOR STANLEY, INC.
5. FOR HIGH SALT ABUSIVE CLIMATES, HOT-DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. HOT-DIP GALVANIZING IS PERFORMED FOR VICTOR STANLEY, INC. BY AN EXPERIENCED QUALIFIED FIRM TO WHICH PRODUCTS ARE SHIPPED FOR GALVANIZING. HOT-DIP GALVANIZING INCLUDES AN AGGRESSIVE PRE-TREATMENT AND IMMERSION IN A TANK OF CHARGED LIQUID ZINC AT OR AROUND 860°F. THE RESULTING SURFACE IS RESISTANT TO RUST BUT HAS SOME UNEVENNESS RESULTING FROM THE BONDING OF THE ZINC TO THE STEEL SURFACE. AS A RESULT, THE POWDER-COATING SURFACE FINISH OVER THAT GALVANIZED SURFACE MAY EXHIBIT BUMPS, UNEVENNESS, AND MAY NOT BE AS SMOOTH AS THE STANDARD FINISH. THIS UNEVEN AND INCONSISTENT FINISH IS NORMAL FOR GALVANIZING. CONTACT MANUFACTURER FOR DETAILS.
6. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
7. THIS PRODUCT IS SHIPPED PARTIALLY UNASSEMBLED.

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REV. 12/12/16 DRAWN T.A.I. 2016-419

1 BENCH (RB-28)

1" = 1"

* ALL DIMENSIONS ARE IN INCHES *



AVAILABLE OPTIONS:
POWDER COATING
10 STANDARD COLORS, 2 OPTIONAL METALLIC COLORS, CUSTOM COLORS (INCLUDING THE RAL RANGE), CUSTOM PLAQUES & DECALS
AVAILABLE WITH STEEL PLAQUES IN VARIOUS SIZES AND PRESSURE SENSITIVE VINYL OUTDOOR DECALS.

LIDS:
STANDARD TAPERED FORMED LID (AS SHOWN). AVAILABLE WITH OPTIONAL DOME LID, DOME LID WITH STAINLESS STEEL ASHTRAY, CONVEX LID, CONVEX LID WITH SELF CLOSING DOOR, RAIN BONNET LID, AND RAIN BONNET LID WITH STAINLESS STEEL ASHTRAY
SECURITY LID IS SECURED WITH VINYL COATED GALVANIZED STEEL AIRCRAFT CABLE. CABLE IS LOOPED AROUND WELDED IN PLACE ATTACHMENT BRACKETS AND CRIMPED IN PLACE. AVAILABLE WITH OPTIONAL MOUNT WITH 3 IN-LINE ANCHOR HOLES (AS SHOWN) AND OPTIONAL BOTTOM PLATE COVER.

- NOTES:
1. DRAWINGS NOT TO SCALE. DO NOT SCALE DRAWINGS.
2. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD FILM COATING. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS).
3. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
4. VICTOR STANLEY, INC., PLASTIC INNER LINERS ARE MOLDED ON TOOLING DESIGNED FOR AND OWNED BY VICTOR STANLEY, INC. THEY OFFER MAXIMUM CAPACITY AND STRENGTH WITH LIGHTWEIGHT CONSTRUCTION USING CRITICAL MOLDED RIBS, INTEGRAL HANDHOLDS, AND HIGH-STRENGTH MATERIALS. THIS MINIMIZES HANDLING DIFFICULTY AND FACILITATES EASY EMPTYING AND STORAGE WHILE AFFORDING LONG SERVICE LIFE.
5. ANCHOR BOLTS NOT PROVIDED BY VICTOR STANLEY, INC.
6. FOR HIGH SALT ABUSIVE CLIMATES, HOT DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. SEE WRITTEN SPECIFICATIONS FOR DETAILS.
7. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
8. THIS PRODUCT IS SHIPPED FULLY ASSEMBLED.

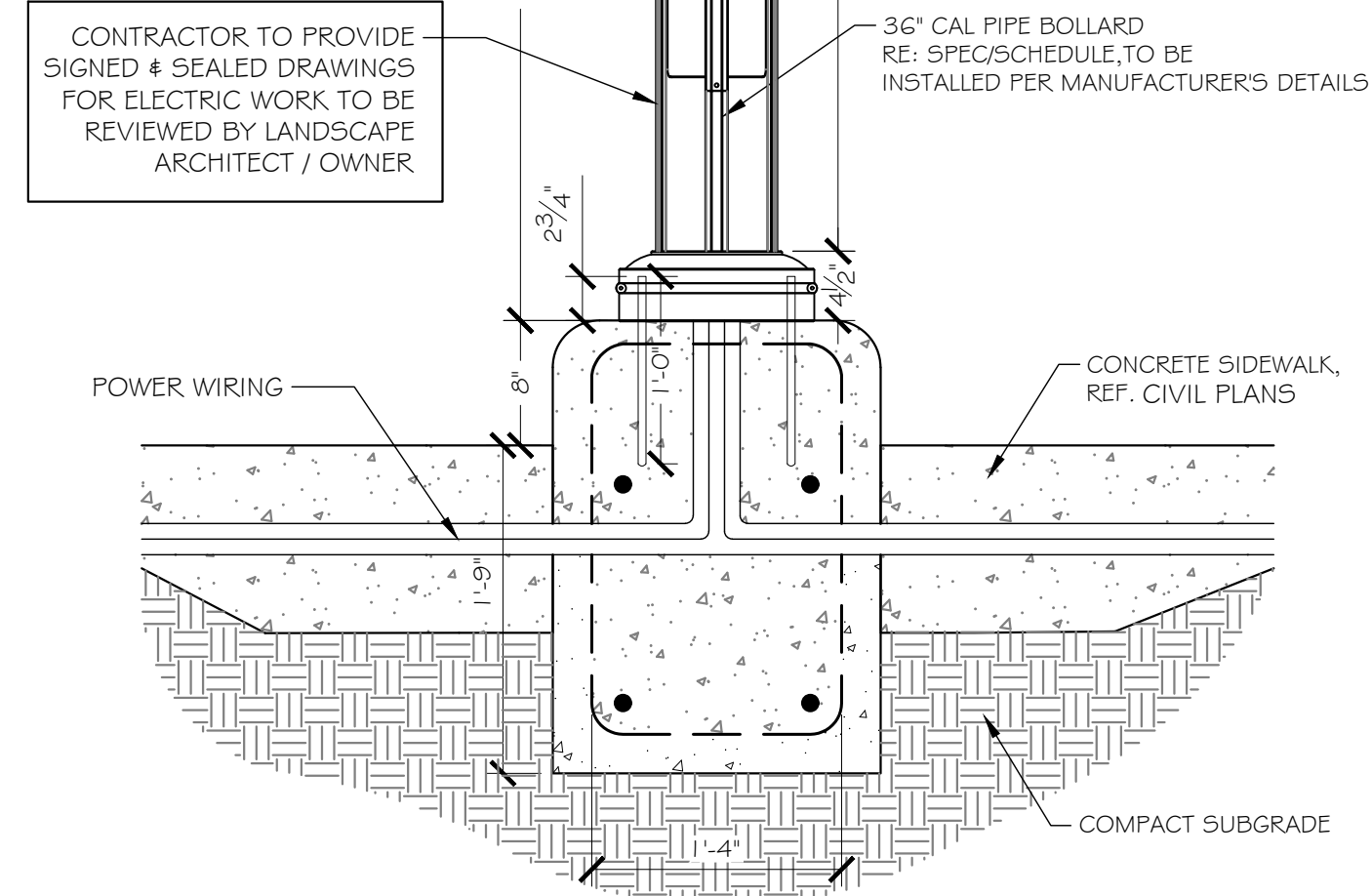
36-GALLON LITTER RECEPTACLE SHOWN: STANDARD TAPERED FORMED LID OPTIONAL MOUNT WITH 3 IN-LINE ANCHOR HOLES
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REV. 7/15/13 DRAWN L.D.L. 2013-519

2 36 GALLON LITTER RECEPTACLE (S-42)

1" = 1"

3 TOWN STANDARD BOLLARD

1" = 1'-0"



P-MU1-RAW-32



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FIRM NO. F-4373

LANDSCAPE DETAILS
ADDISON RAWHIDE BASIN
DRAINAGE IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
AMD	AET	JUNE 2022	AS SHOWN			58

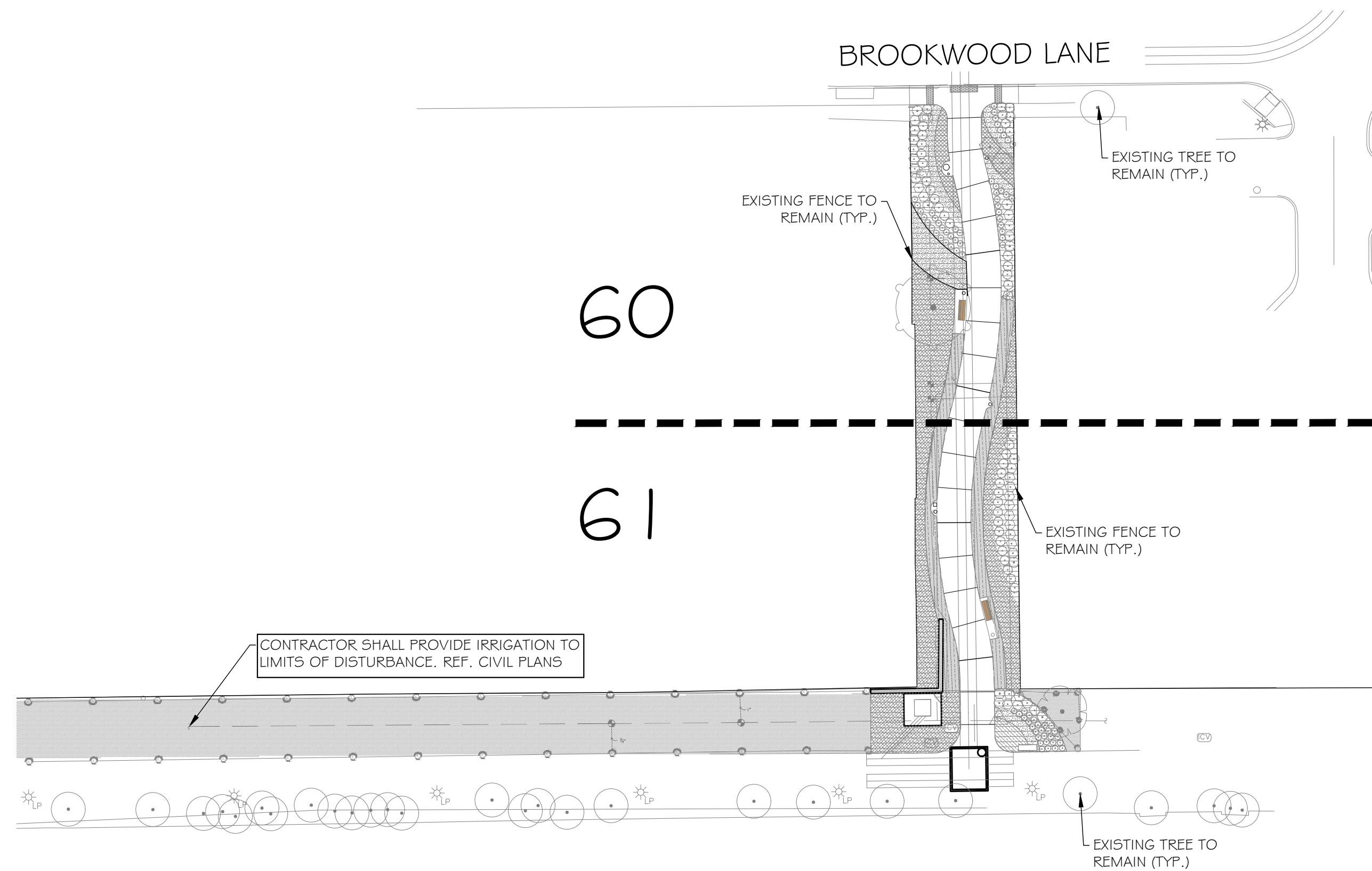
IRRIGATION MODIFICATION NOTES

THE CONTRACTOR SHALL VISIT THE SITE & DOCUMENT THE EXISTING IRRIGATION SYSTEM TO A LEVEL SUFFICIENT TO DETERMINE:

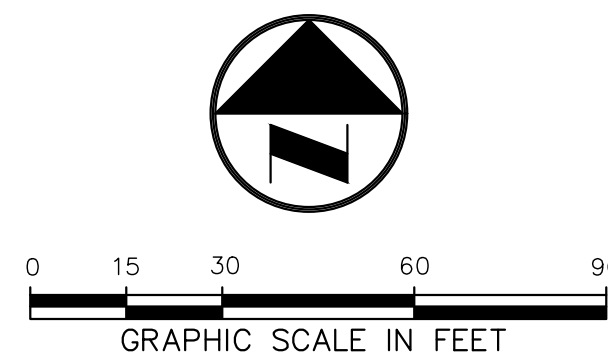
1. THAT THE BACKFLOW PREVENTION DEVICE ON THE EXISTING SYSTEM IS FUNCTIONAL. IF NOT, HE SHALL PROVIDE A NEW ONE.
2. THAT THE EXISTING CONTROLLER CAN ACCOMMODATE NEW ZONES OR EXISTING ZONES MODIFIED WITHIN TCEQ DESIGN CRITERIA TO ACCOMMODATE EXISTING ZONES. PROVIDE NEW CONTROLLER IS NECESSARY.
3. IF EXISTING RAIN/FREEZE SENSOR IS PRESENT & FUNCTIONAL. IF NOT, PROVIDE ONE COMPATIBLE WITH CONTROLLER.
4. WHAT MANUFACTURER IS CURRENTLY IN USE & PROVIDE SAME BRAND OF EQUIPMENT TO MODIFIED ZONES.

CONTRACTOR SHALL:

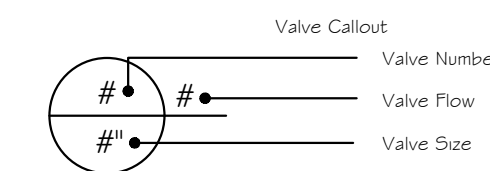
1. FOLLOW ALL TCEQ IRRIGATION REQUIREMENTS & STANDARDS.
2. PROVIDE LAMINATED 8 1/2" X 11" AS-BUILT OF THE FINISHED/MODIFIED SYSTEM.
3. DEMONSTRATE TO AN OWNER'S REPRESENTATIVE THAT THE IRRIGATION SYSTEM IS FULLY FUNCTIONAL AND RUNNING PROPERLY PRIOR TO FINAL ACCEPTANCE AND BEGINNING OF THE WARRANTY PERIOD
4. PROVIDE THAT ALL TRENCHING WITHIN DRIP LINE OF EXISTING TREES SHALL BE DONE WITH HAND TOOLS AND SHALL NOT CUT ANY ROOT OVER 3" DIAMETER.
5. EXAMINE THE PLANS IN THEIR ENTIRETY TO DETERMINE THE APPROXIMATE LOCATION OF EXISTING AND PROPOSED UTILITIES. HE SHALL ALSO CONTACT THE APPROPRIATE AUTHORITY TO MARK UTILITIES ON THE SITE. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO UTILITIES ON THE SITE CAUSED BY HIS WORK.



1 OVERALL IRRIGATION PLAN
1" = 30'-0"



SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER MP CORNER PRO5-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. T=TURQUOISE ADJ ARC 45-105 ON PR540 BODY.
	HUNTER MP1000 PRO5-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.
	HUNTER MP2000 PRO5-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.
	HUNTER MP800SR PRO5-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. ADJ=ORANGE AND GRAY (ARC 90-210), 360=LIME GREEN AND GRAY (ARC 360)
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER ICZ-101-40 DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 40PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN.
	AREA TO RECEIVE DRIPLINE HUNTER HDL-06-12-CV HDL-06-12-CV: HUNTER DRIPLINE W/ 0.6 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH GRAY STRIPING. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOG FITTINGS.
	AREA TO RECEIVE DRIPLINE HUNTER HDL-06-12-CV TURF HDL-06-12-CV: HUNTER DRIPLINE W/ 0.6 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH GRAY STRIPING. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOG FITTINGS.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER PGV-101-G 1" PLASTIC ELECTRIC REMOTE CONTROL VALVE, FOR RESIDENTIAL/LIGHT COMMERCIAL USE. FEMALE NPT INLET/OUTLET. GLOBE CONFIGURATION, WITH FLOW CONTROL.
	POINT OF CONNECTION 2" EXISTING METER, BACKFLOW DEVICE
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21



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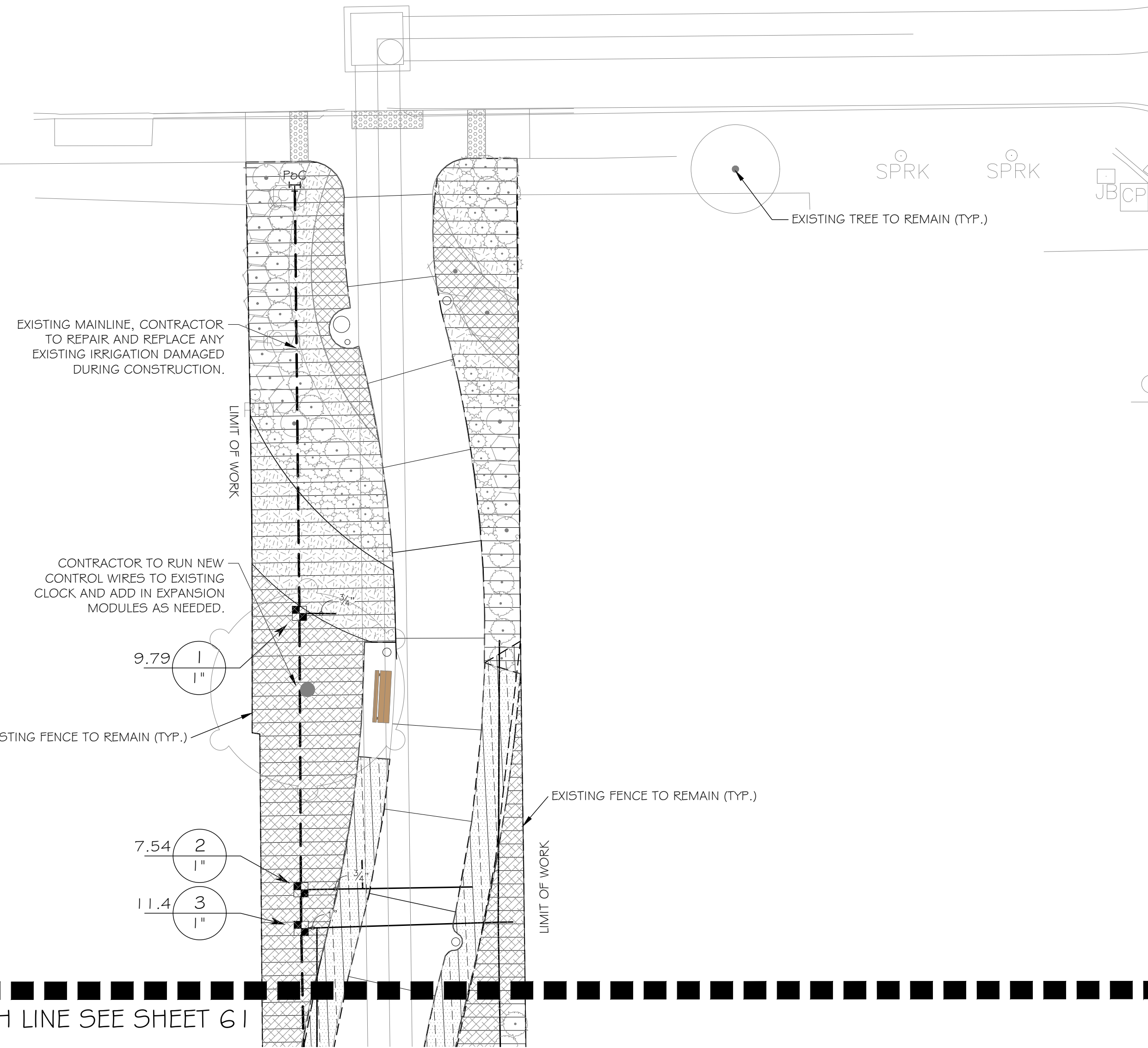


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FIRM NO. F-4373

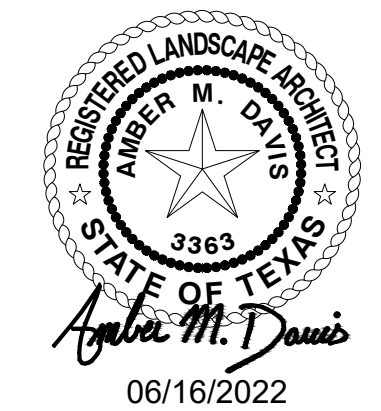
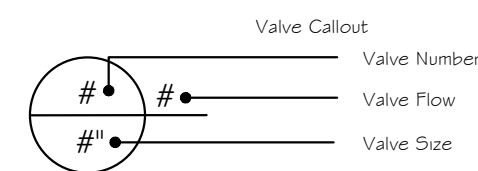
OVERALL IRRIGATION PLAN
ADDISON RAWHIDE BASIN
DRAINAGE IMPROVEMENTS
TOWN OF ADDISON, TEXAS

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AMD	AET	JUNE 2022	AS SHOWN			59

BROOKWOOD LANE



SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER MP CORNER PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. T=TURQUOISE ADJ ARC 45-105 ON PR540 BODY.
	HUNTER MP1000 PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.
	HUNTER MP2000 PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.
	HUNTER MP800SR PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. ADJ=ORANGE AND GRAY (ARC 90-210), 360=LIME GREEN AND GRAY (ARC 360)
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER ICZ-101-40 DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 40PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN.
	AREA TO RECEIVE DRIPLINE HUNTER HDL-06-12-CV HDL-06-12-CV: HUNTER DRIPLINE W/ 0.6 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH GRAY STRIPING. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOC FITTINGS.
	AREA TO RECEIVE DRIPLINE HUNTER HDL-06-12-CV TURF HDL-06-12-CV: HUNTER DRIPLINE W/ 0.6 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH GRAY STRIPING. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOC FITTINGS.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER PGV-101G 1" PLASTIC ELECTRIC REMOTE CONTROL VALVE, FOR RESIDENTIAL/LIGHT COMMERCIAL USE. FEMALE NPT INLET/OUTLET. GLOBE CONFIGURATION, WITH FLOW CONTROL.
	POINT OF CONNECTION 2" EXISTING METER, BACKFLOW DEVICE
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21



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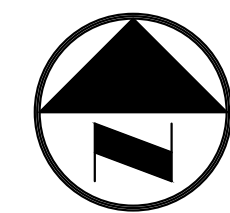


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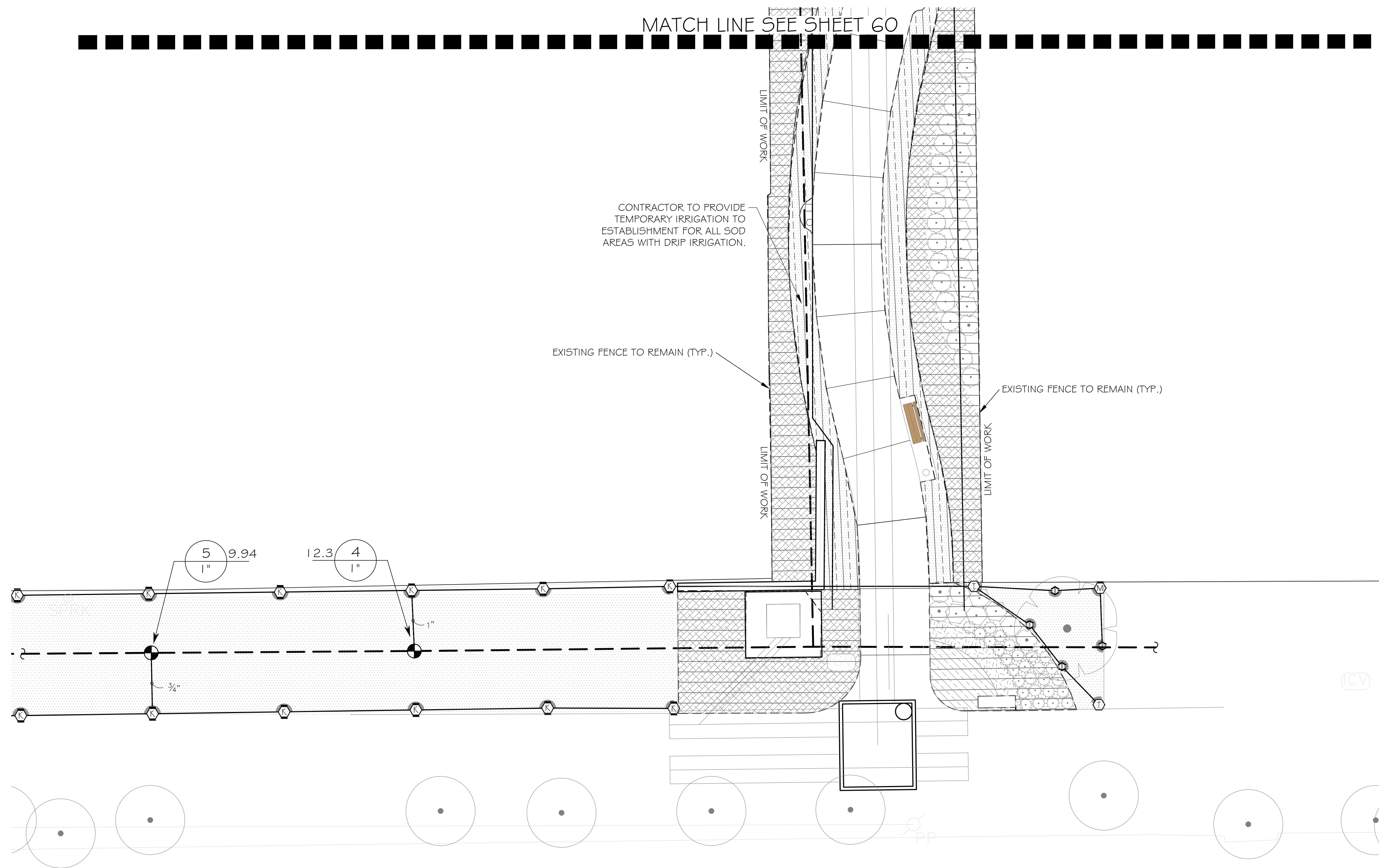
IRRIGATION PLAN
 ADDISON RAWHIDE BASIN
 DRAINAGE IMPROVEMENTS
 TOWN OF ADDISON, TEXAS

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AMD	AET	JUNE 2022	AS SHOWN			60

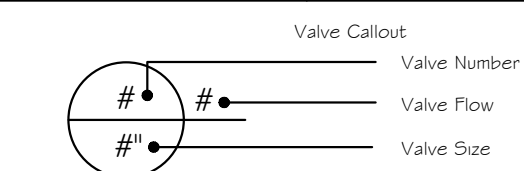
1 IRRIGATION PLAN
 1" = 10'-0"



MATCH LINE SEE SHEET 60



SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER MP CORNER PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. T=TURQUOISE ADJ ARC 45-105 ON PR540 BODY.
	HUNTER MP1000 PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.
	HUNTER MP2000 PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.
	HUNTER MP800SR PRO5-04-PR540-CV TURF ROTATOR, 4" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PR540 BODY. ADJ=ORANGE AND GRAY (ARC 90-210), 360=LIME GREEN AND GRAY (ARC 360)
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	HUNTER ICZ-101-40 DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 40PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN.
	AREA TO RECEIVE DRIPLINE HUNTER HDL-06-12-CV HDL-06-12-CV: HUNTER DRIPLINE W/ 0.6 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH GRAY STRIPING. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOC FITTINGS.
	AREA TO RECEIVE DRIPLINE HUNTER HDL-06-12-CV TURF HDL-06-12-CV: HUNTER DRIPLINE W/ 0.6 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH GRAY STRIPING. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOC FITTINGS.
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	POINT OF CONNECTION 2" EXISTING METER, BACKFLOW DEVICE
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21



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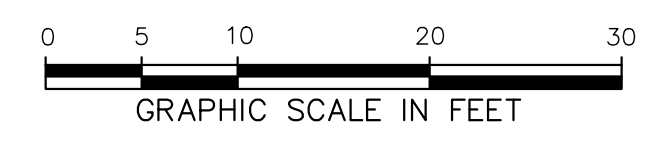
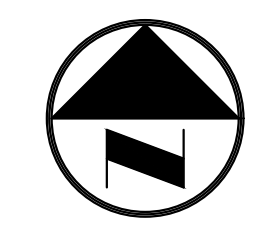


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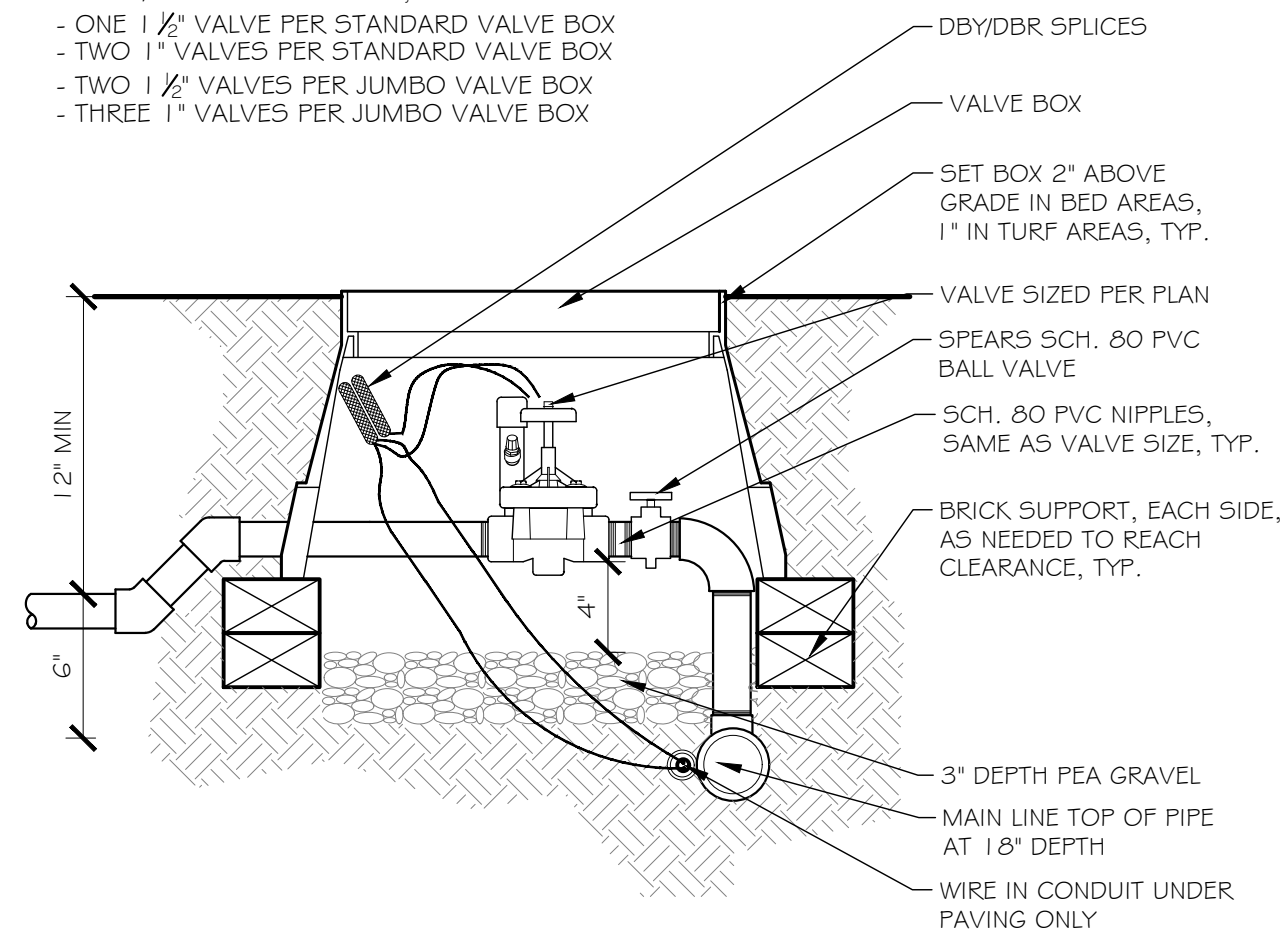
IRRIGATION PLAN
ADDISON RAWHIDE BASIN
DRAINAGE IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
AMD	AET	JUNE 2022	AS SHOWN			61

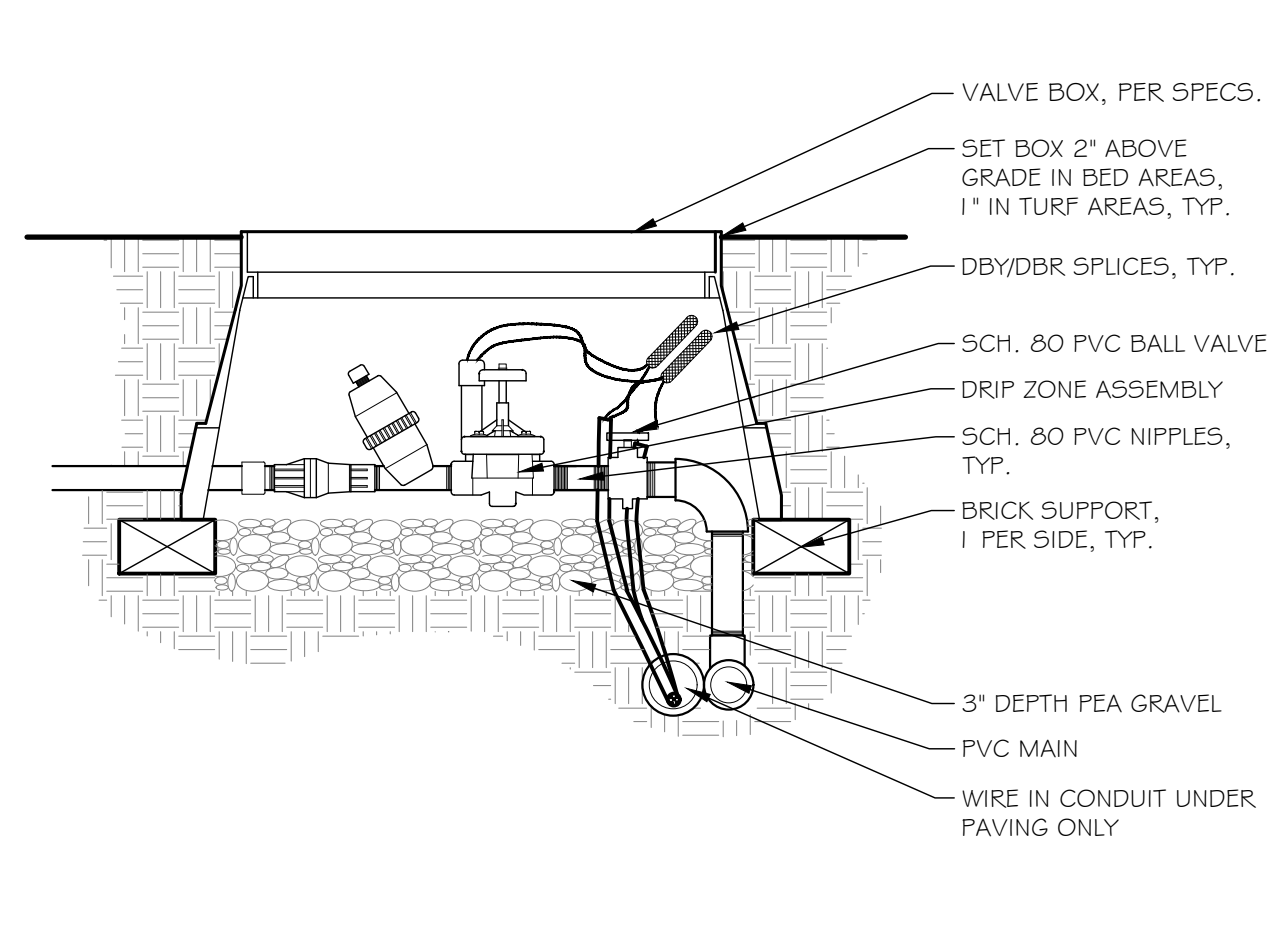
1 IRRIGATION PLAN
1" = 10'-0"



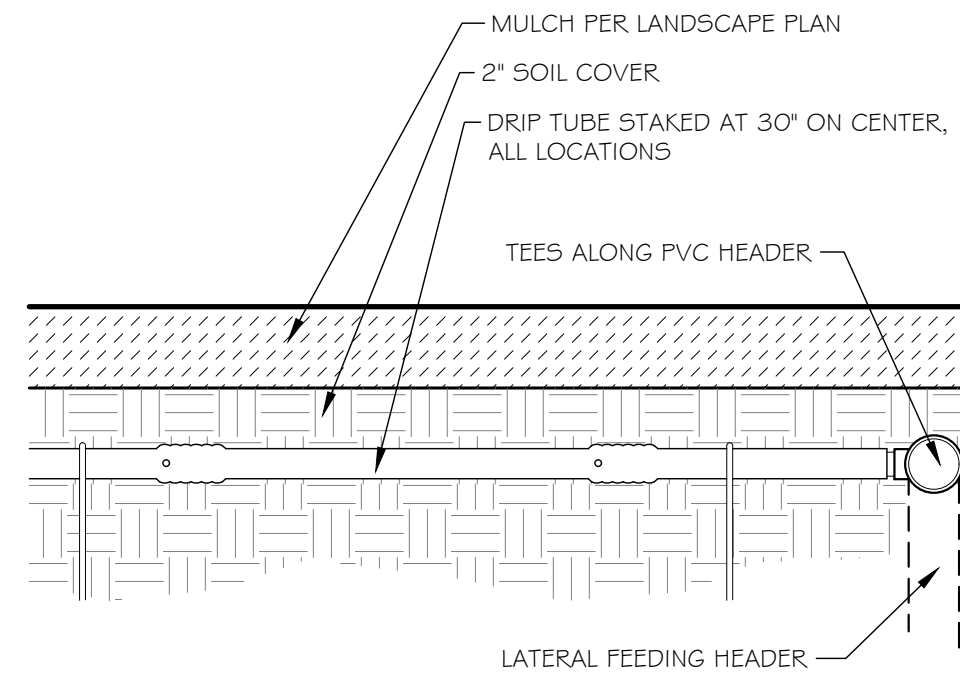
*VALVE/BOX REQUIREMENTS, MAX. MANIFOLDING:
 - ONE 1/2" VALVE PER STANDARD VALVE BOX
 - TWO 1" VALVES PER STANDARD VALVE BOX
 - TWO 1/2" VALVES PER JUMBO VALVE BOX
 - THREE 1" VALVES PER JUMBO VALVE BOX



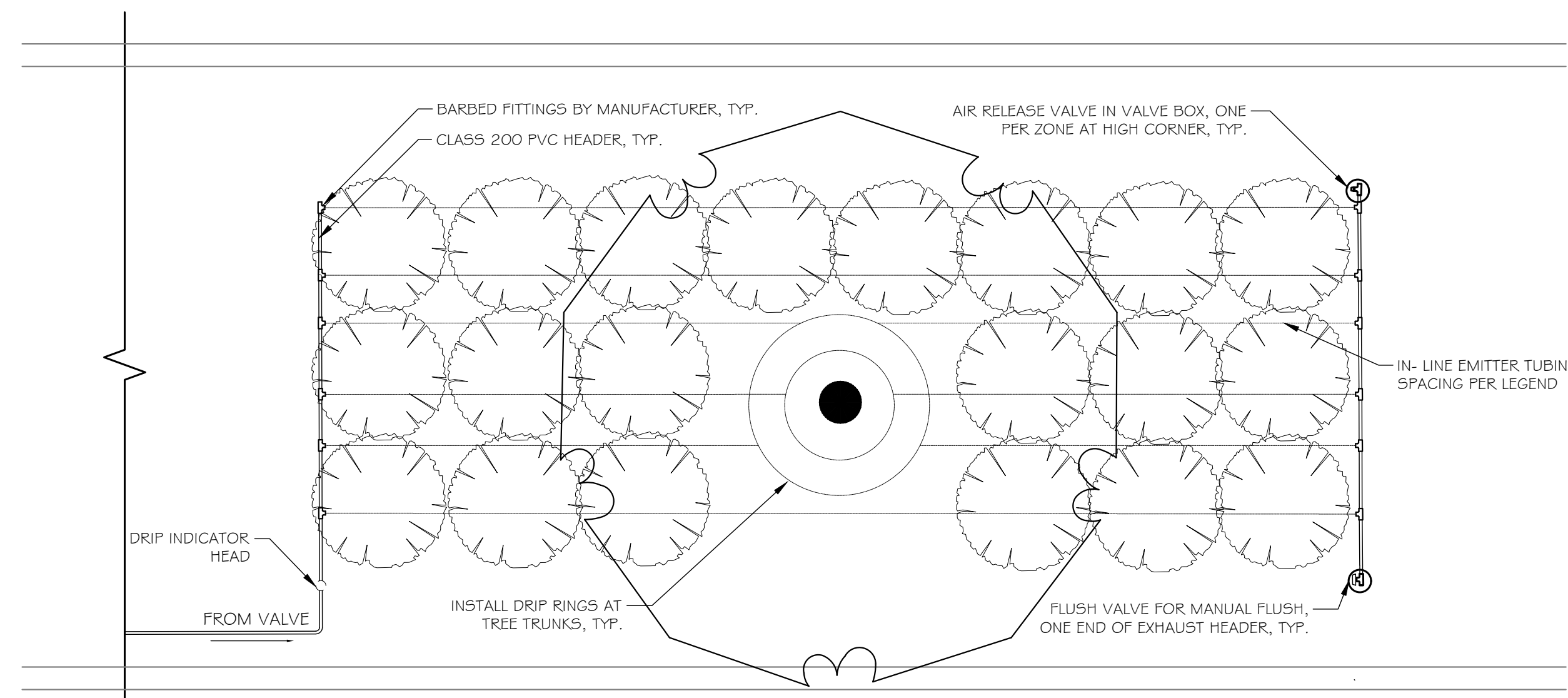
1 AUTOMATIC SYSTEM VALVE
 1 1/2" = 1'-0"



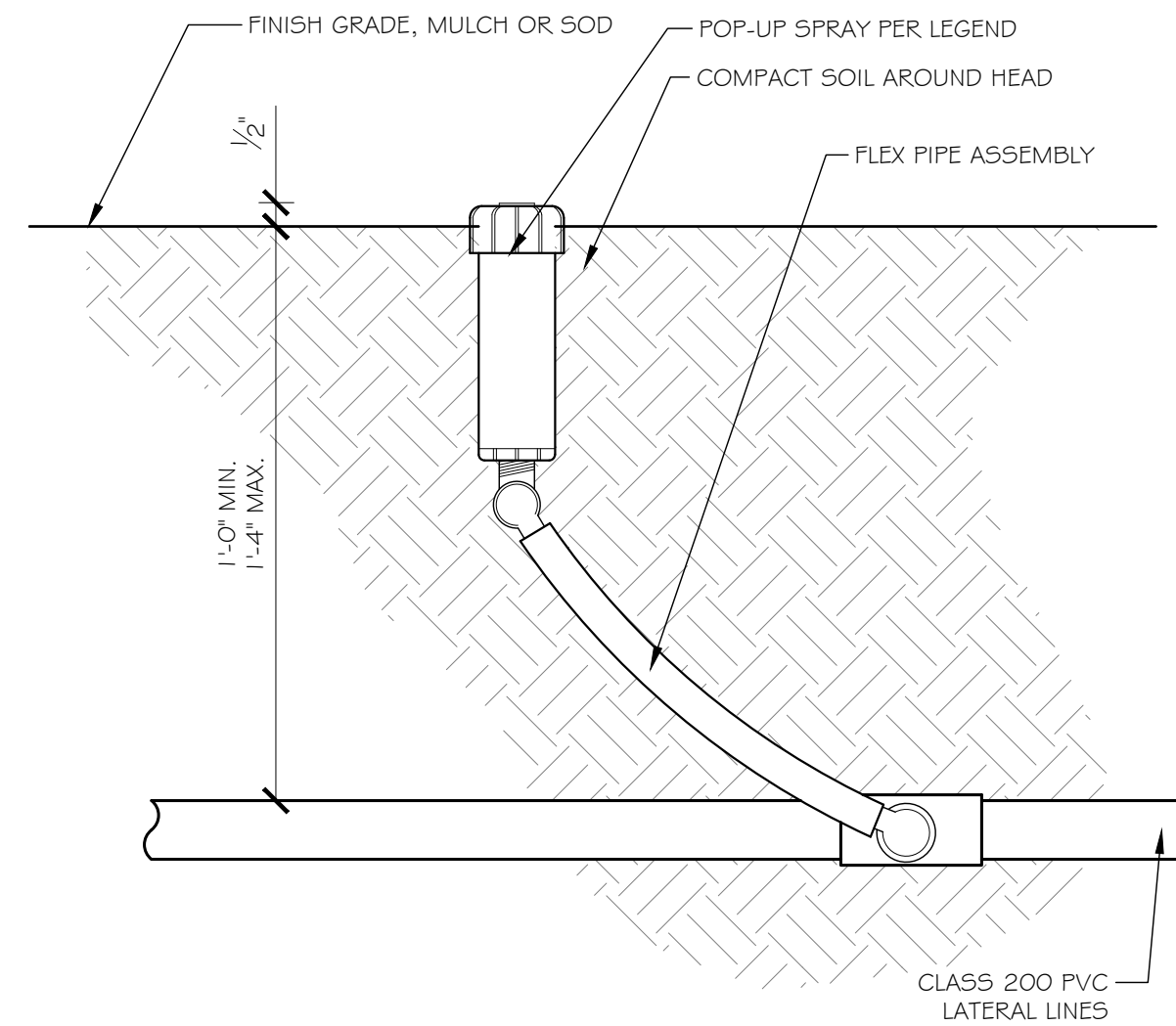
2 DRIP ZONE VALVE ASSEMBLY-AT GRADE
 1 1/2" = 1'-0"



3 DRIP TUBE INSTALLATION - AT GRADE
 3" = 1'-0"



4 DRIP ZONE TYPICAL ENLARGEMENT
 3/8" = 1'-0"



5 SPRAY HEAD / ROTATOR HEAD
 3" = 1'-0"



REVISIONS			
REV NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

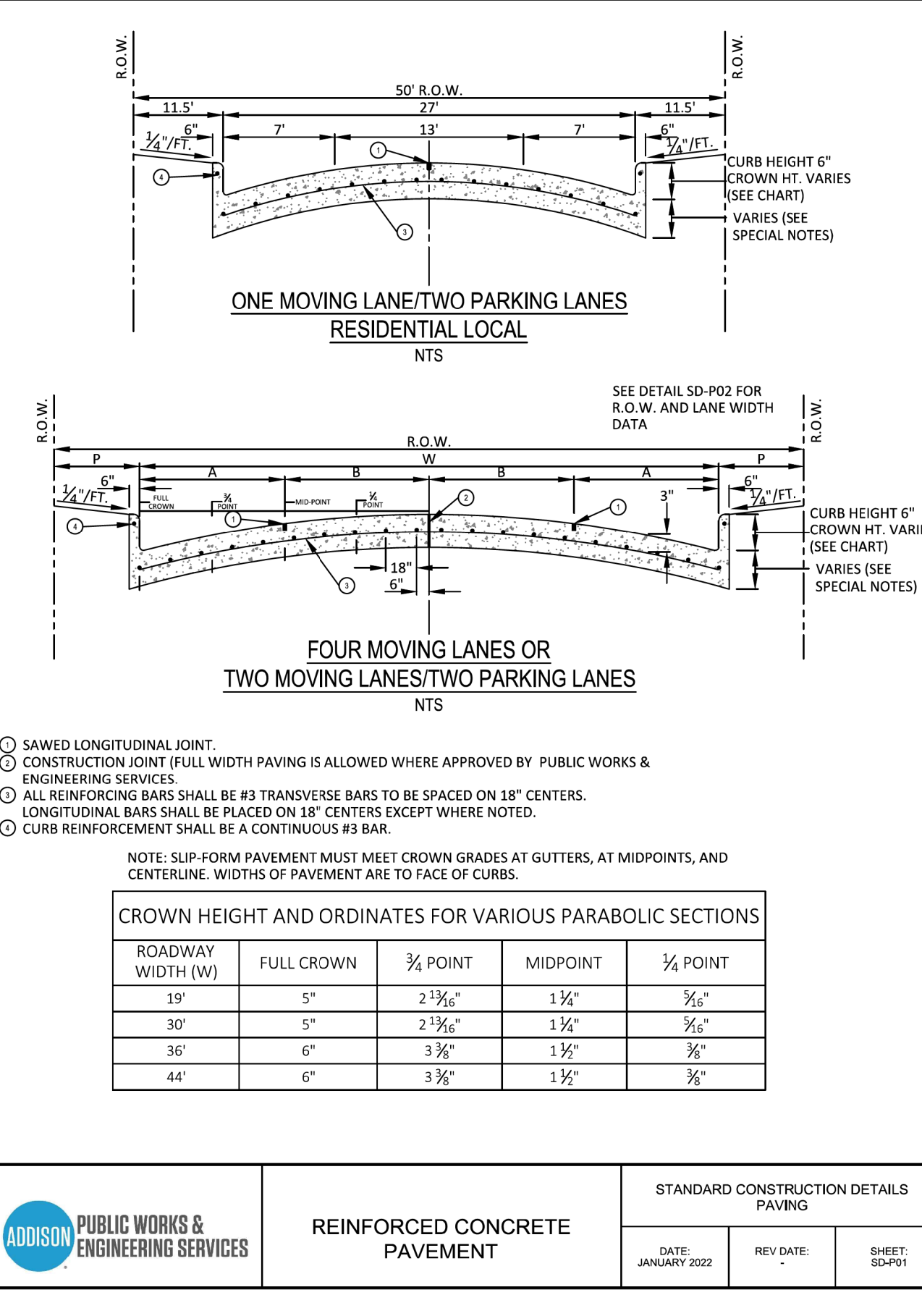
IRRIGATION DETAILS
 ADDISON RAWHIDE BASIN
 DRAINAGE IMPROVEMENTS
 TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
AMD	AET	JUNE 2022	AS SHOWN			62

2. GENERAL NOTES FOR PAVING SYSTEMS

- 2.1. ALL PAVING CONSTRUCTION, TESTING, AND MATERIALS, INCLUDING CONCRETE, REINFORCEMENT, JOINTING, AND SUBGRADE PREPARATION AND TREATMENT SHALL BE IN ACCORDANCE WITH THE TOWN'S CURRENT STANDARDS, DETAILS, AND CONSTRUCTION SPECIFICATIONS UNLESS OTHERWISE NOTES.
- 2.2. NO EARTHWORK, LIME APPLICATION, OR OTHER PREPARATION OF THE SUBGRADE FOR PAVING OF STREETS, ALLEYS, OR FIRE LANES SHALL BE INITIATED WITHOUT AUTHORIZATION FROM THE TOWN. THE TOWN WILL AUTHORIZE THE SUBGRADE ENGINEERING STANDARDS WORK IN PREPARATION FOR PAVING AFTER UTILITY TRENCH BACKFILL TESTING HAS BEEN COMPLETED AND VERIFIED TO MEET THE TOWN REQUIREMENTS.
- 2.3. SUBGRADE
 - 2.3.1. SHALL EXTEND 12" MIN. BEHIND THE BACK OF CURB.
 - 2.3.2. SUBGRADE UNDER ALL PAVEMENT SHALL BE 6" THICK AND SHALL BE STABILIZED HTH AT LEAST 30 LBS. PER SQ. YD. HYDRATED LIME, COMPACTED TO A DENSITY NOT LESS THAN 95 PERCENT.
 - 2.3.3. LABORATORY TESTS MUST BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR APPROVAL TO DETERMINE AMOUNT OF LIME REQUIRED. LABORATORY TEST MAY BE WAIVED PROVIDED AT LEAST 36 LBS. OF LIME PER SQ. YD. IS USED. SEE NCTCOG ITEM 301.2 "LIME TREATMENT".
 - 2.3.4. FLEXIBLE BASE (CRUSHED STONE/CONCRETE) PER NCTCOG ITEM 301.5 MAY BE SUBSTITUTED FOR LIME TREATMENT WITH THE APPROVAL OF THE TOWN ENGINEER.
- 2.4. REINFORCING STEEL
 - 2.4.1. BAR LAPS SHALL BE THIRTY DIAMETERS.
 - 2.4.2. REINFORCING STEEL SHALL BE #3 REBAR (3/8") ON 18" CENTERS FOR 8" OR LESS PAVEMENT THICKNESS, #4 FOR 10" OR MORE PAVEMENT THICKNESS.
 - 2.4.3. REBAR SHALL BE SUPPORTED BY BAR CHAIRS OR OTHER DEVICES APPROVED BY TOWN ENGINEER.
 - 2.4.4. NO TRAFFIC ON FINISHED SUBGRADE SHALL BE PERMITTED AFTER REINFORCING STEEL IS INSTALLED ABOVE SUBGRADE. NO TRAFFIC SHALL BE PERMITTED BEFORE OR DURING THE PLACING OF CONCRETE.
- 2.5. CONCRETE PAVEMENT:
 - 2.5.1. ALL CONCRETE STRENGTH AND MIX DESIGN SHALL BE AS SHOWN IN LATEST EDITION OF NCTCOG SECTION 303.3
 - 2.5.2. CLASS P1 PAVEMENT : MACHINE FINISHED: A SLIP-FORM PAVING MACHINE SHALL BE USED FOR ALL PUBLIC STREETS AND ALLEYS UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF PUBLIC WORKS & ENGINEERING SERVICES. MIN. 4000 PSI 28-DAY COMPRESSIVE STRENGTH.
 - 2.5.3. CLASS P2 PAVEMENT : HAND FINISHED: HAND FINISHED PAVEMENT IS PERMITTED FOR TURN LANES, DECELERATION LANES, DRIVEWAY APPROACHES, OR PANEL REPLACEMENT OF PUBLIC STREETS OR ALLEYS. MIN. 4500 PSI 28-DAY COMPRESSIVE STRENGTH
 - 2.5.4. MINIMUM PAVEMENT THICKNESS SHALL BE AS FOLLOWS:
 - 2.5.4.1. MAJOR ARTERIAL - 10" CLASS "P1" OR "P2"
 - 2.5.4.2. MINOR ARTERIAL - 8" CLASS "P1" OR "P2"
 - 2.5.4.3. COMMERCIAL/ INDUSTRIAL COLLECTOR - 8" CLASS "P1" OR "P2"
 - 2.5.4.4. RESIDENTIAL COLLECTOR - 8" CLASS "P1" OR "P2"
 - 2.5.4.5. RESIDENTIAL LOCAL - 8" CLASS "P1" OR "P2"
 - 2.5.4.6. SIDEWALK AND BFR'S - 4" - CLASS "A"
 - 2.5.4.7. DRIVE APPROACH 8" - CLASS "P2"
 - 2.5.4.8. ALLEY - 6" CLASS "P1" OR "P2"
 - 2.5.5. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECTS. WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLAN.
 - 2.5.6. SPACING AND CONSTRUCTION OF JOINTS SHALL CONFORM TO TOWN OF ADDISON STANDARD CONSTRUCTION DETAILS.
 - 2.5.7. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL PEDESTRIAN WORK MEETS OR EXCEEDS THE CURRENT AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG), THE TEXAS ACCESSIBILITY STANDARDS (TAS), AND PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG). THE CONTRACTOR SHALL REMOVE AND REPLACE ANY CONSTRUCTED OR INSTALLED ITEMS NOT MEETING THE CURRENT ADAAG, TAS, & PROWAG REQUIREMENTS AT NO ADDITIONAL COST TO THE TOWN.
 - 2.5.8. ALL MEDIANS AND PARKWAYS SHALL BE PROVIDED WITH GROUND COVER. TYPE OF GROUND COVER SHALL BE DETERMINED BY THE PARKS & RECREATION DEPARTMENT, OR SHALL BE RESTORED TO MATCH EXISTING PLANT MATERIALS IN EQUAL OR BETTER CONDITION. ALL TURF AREAS SHALL BE SOLID SOD, AND GROUND COVER SHALL BE MINIMUM ONE (1) GALLON PLANT MATERIAL.

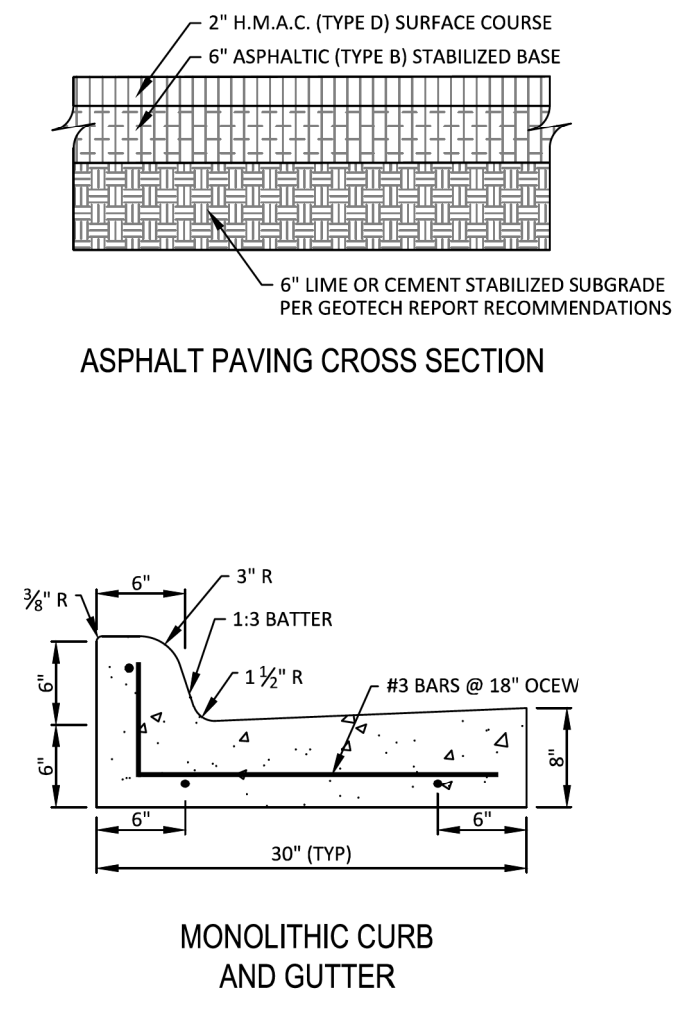
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STANDARD CONSTRUCTION DETAILS PAVING

REINFORCED CONCRETE PAVEMENT

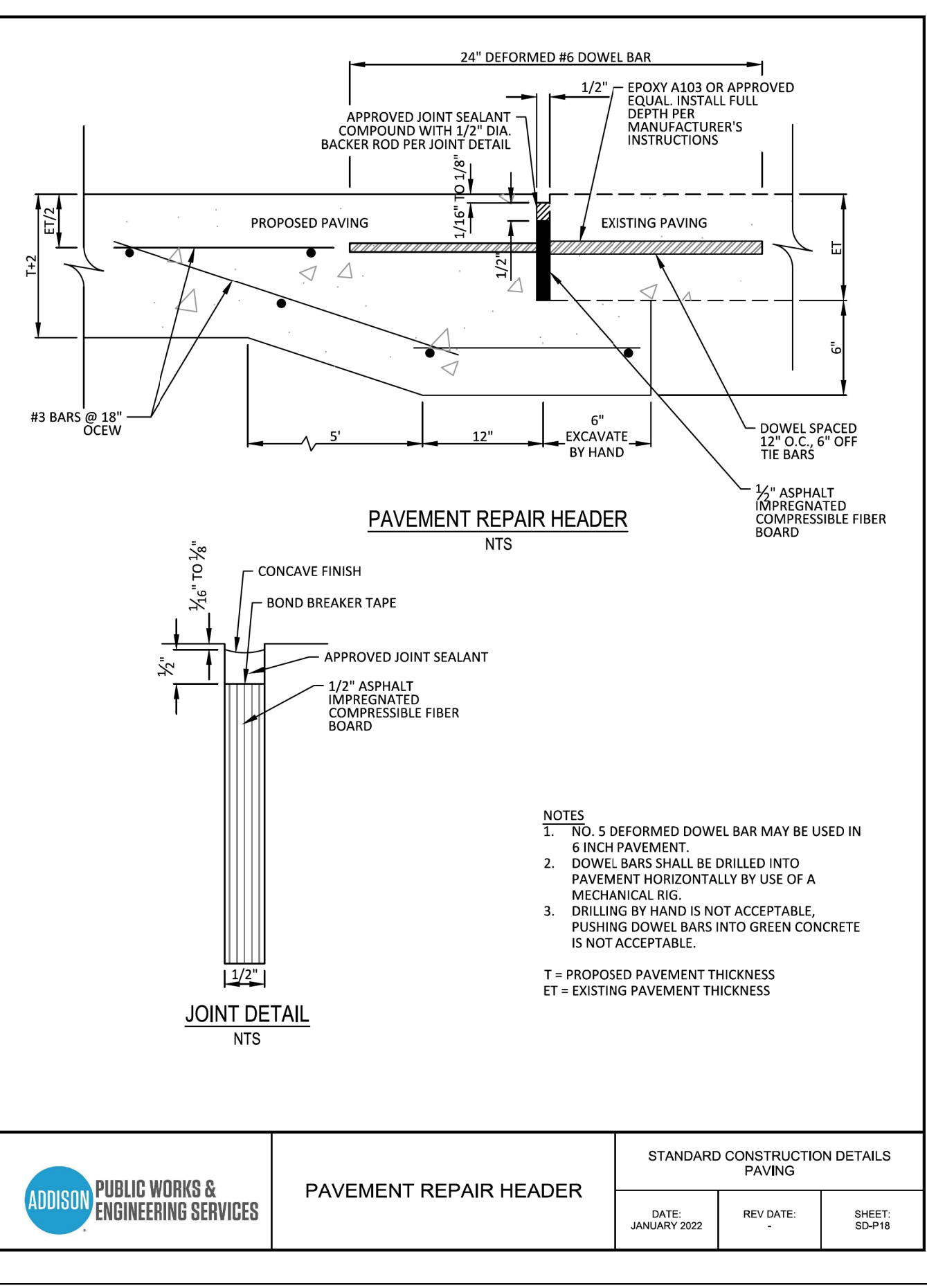
DATE: JANUARY 2022 REV DATE: SHEET: SDP18



STANDARD CONSTRUCTION DETAILS PAVING

ASPHALT PAVING CROSS SECTION WITH CURB AND GUTTER

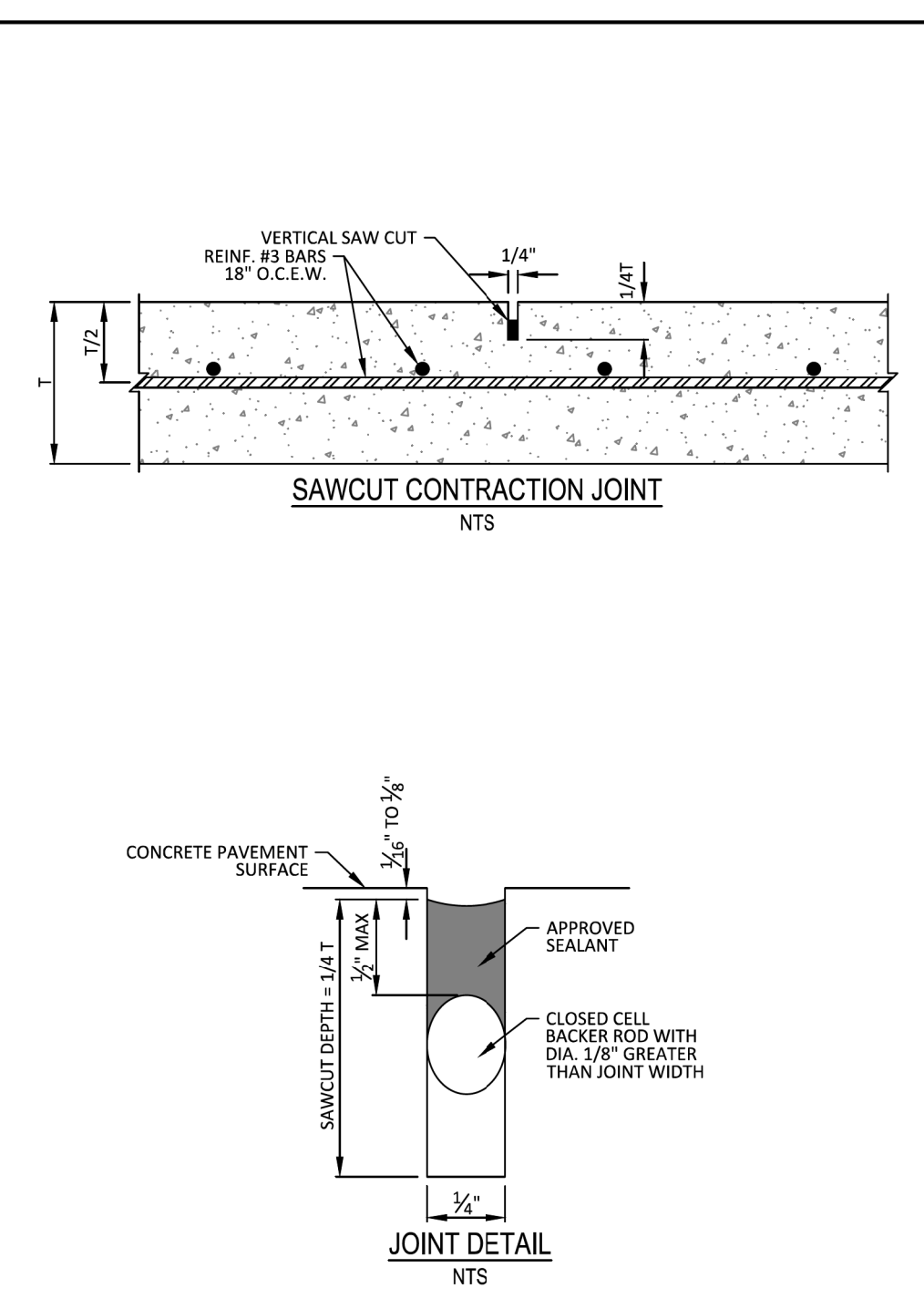
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STANDARD CONSTRUCTION DETAILS PAVING

PAVEMENT REPAIR HEADER

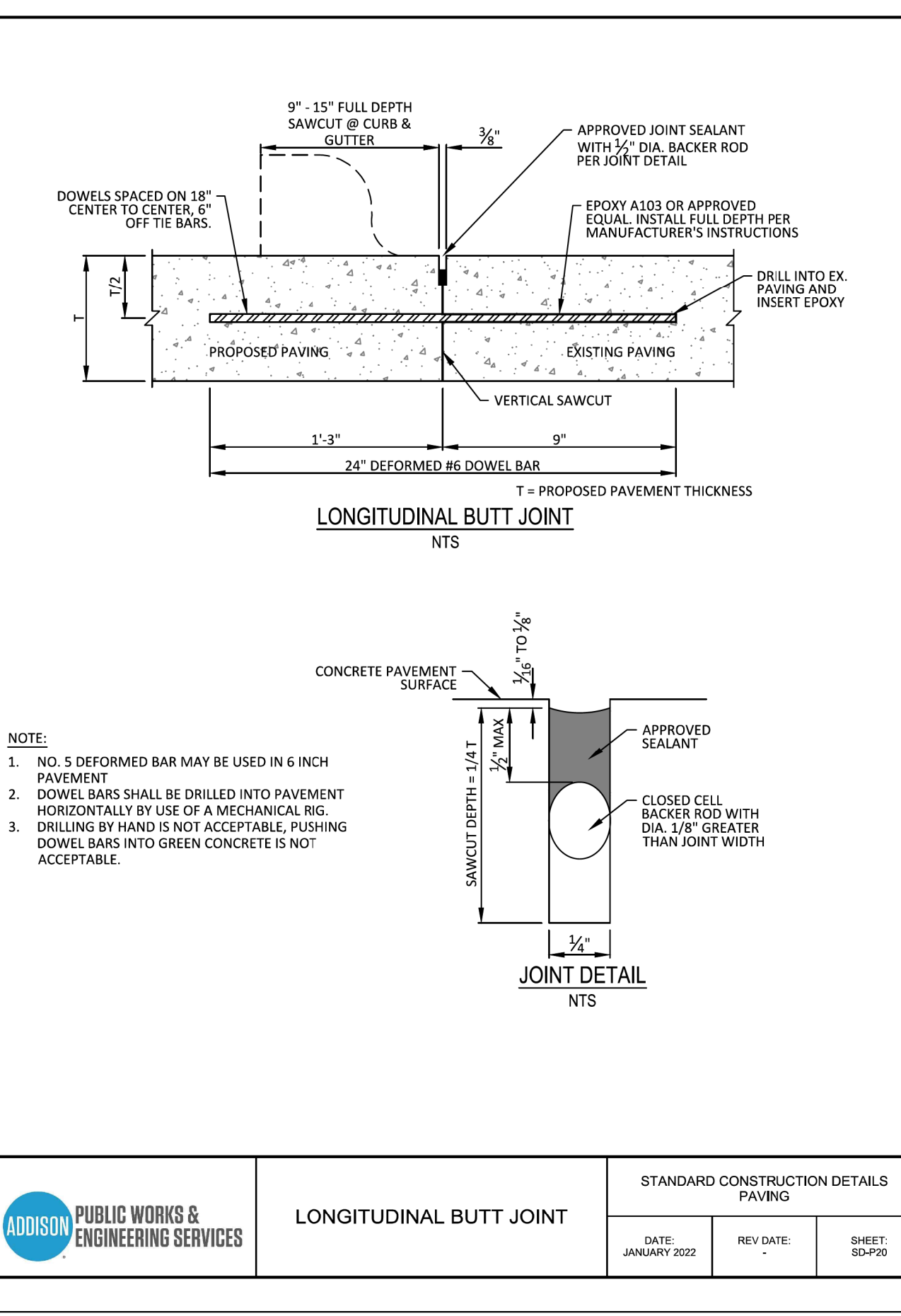
DATE: JANUARY 2022 REV DATE: SHEET: SDP18



STANDARD CONSTRUCTION DETAILS PAVING

SAWCUT CONTRACTION JOINT

DATE: JANUARY 2022 REV DATE: SHEET: SDP18



STANDARD CONSTRUCTION DETAILS PAVING

LONGITUDINAL BUTT JOINT

DATE: JANUARY 2022 REV DATE: SHEET: SDP18

SHERRY LYNN WILLIAMS
PROFESSIONAL ENGINEER
06/24/2022

REV NO.	DATE	DESCRIPTION	BY
1			
2			

CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

CONSTRUCTION DETAILS SHEET 1 OF 5

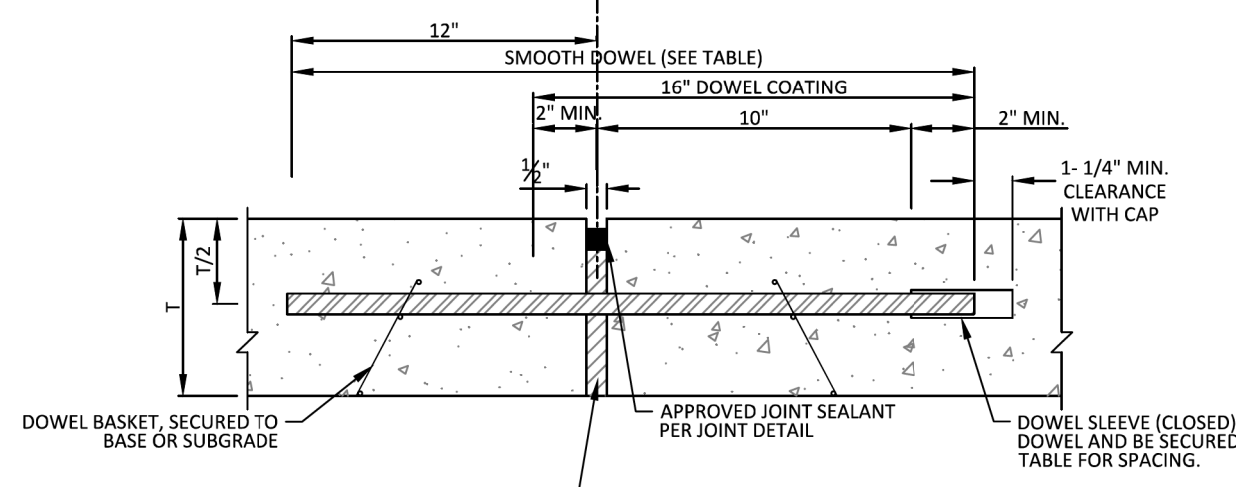
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		63

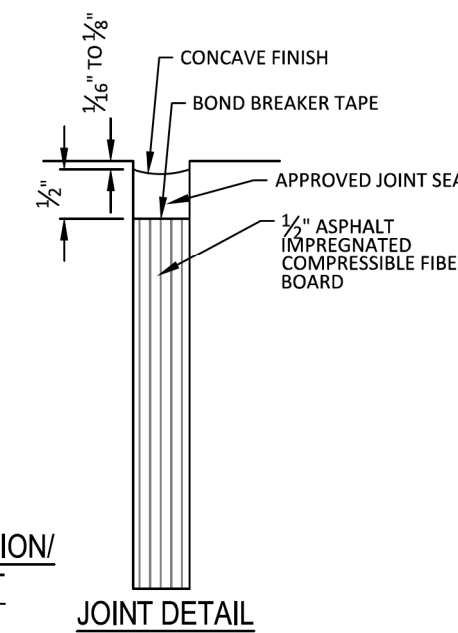
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PAVEMENT THICKNESS	DOWEL DIA.	DOWEL LENGTH	DOWEL SPACING
6"	3/4"	24"	12"
7"	1"	24"	12"
8"	1"	24"	12"



- NOTES
1. DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE AND MUST BE TIED OR CHAIRED ON EACH SIDE.
 2. DOWELS MUST BE PERPENDICULAR TO FACE OF CONCRETE.
 3. NO. 5 SMOOTH DOWEL BARS MAY BE USED IN 6" PAVEMENT.
 4. TRANSVERSE EXPANSION JOINTS SHALL BE LOCATED AT INTERSECTIONS.

TRANSVERSE ISOLATION/ EXPANSION JOINT NTS

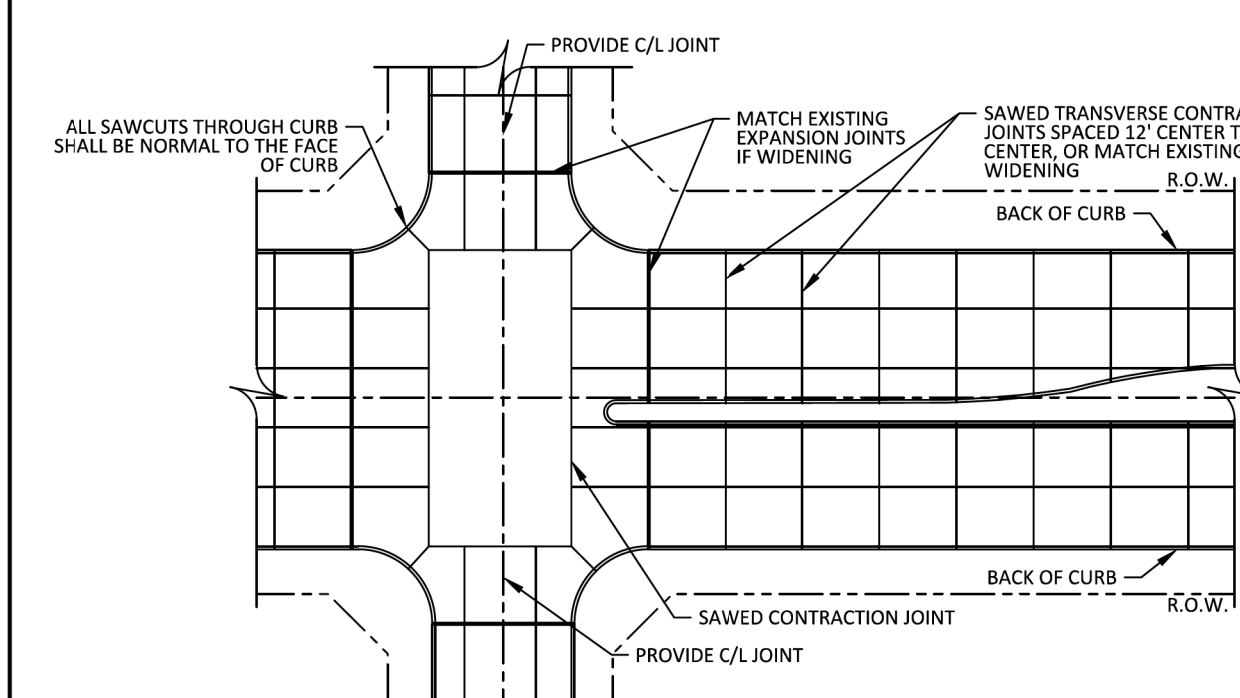


ADDISON PUBLIC WORKS & ENGINEERING SERVICES

TRANSVERSE EXPANSION JOINT

STANDARD CONSTRUCTION DETAILS PAVING

DATE: JANUARY 2022 REV. DATE: SHEET: SD-P21



SPACING DIAGRAM FOR TRANSVERSE JOINTS NTS

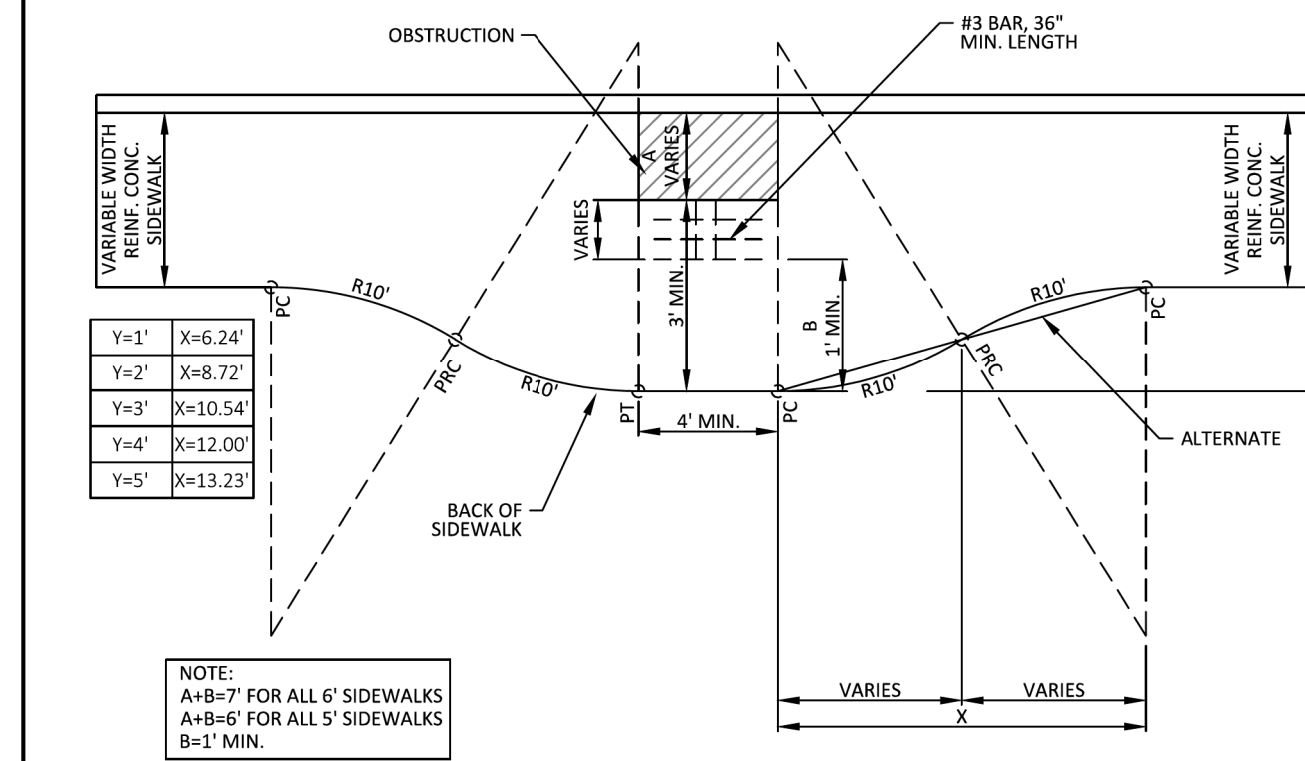
NOTE: ALLEYS TO BE SAWS TRANSVERSE AT 12'-0" C-C

ADDISON PUBLIC WORKS & ENGINEERING SERVICES

SPACING DIAGRAM FOR TRANSVERSE JOINTS

STANDARD CONSTRUCTION DETAILS PAVING

DATE: JANUARY 2022 REV. DATE: SHEET: SD-P23



SIDEWALK WIDENING & SIDEWALK ADJACENT TO CURB NTS

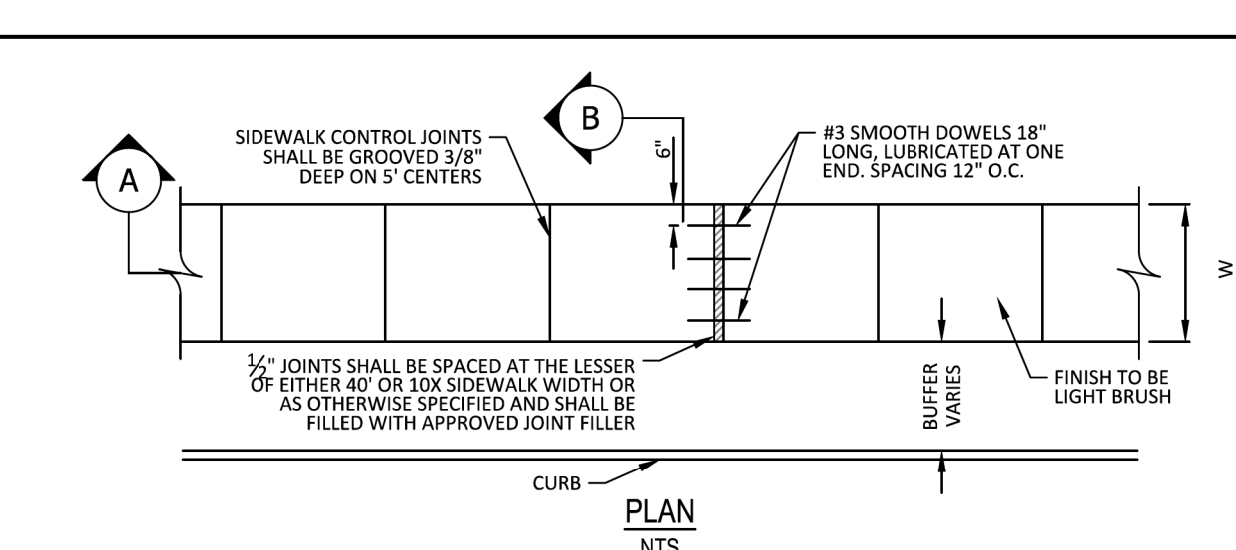
NOTE: BUFFER, SIDEWALK, AND PARKWAY WIDTHS SHALL BE PER THE MASTER TRANSPORTATION PLAN

ADDISON PUBLIC WORKS & ENGINEERING SERVICES

SIDEWALK WIDENING & SIDEWALK ADJACENT TO CURB

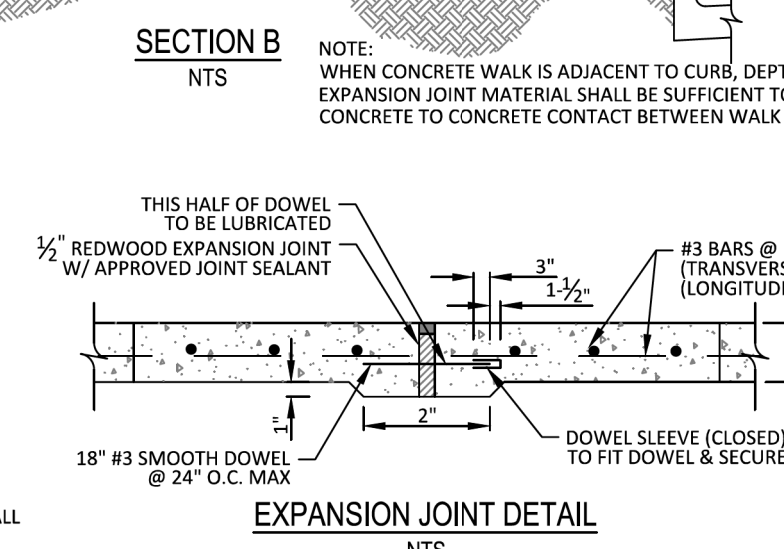
STANDARD CONSTRUCTION DETAILS PAVING

DATE: JANUARY 2022 REV. DATE: SHEET: SD-P25



CONCRETE SIDEWALK NTS

SIDEWALK WIDTH(W)	PANEL LENGTH(L)	SIDEWALK THICKNESS(T)
5'	5'	4"
6'	6'	5"
8'	8'	5"



ADDISON PUBLIC WORKS & ENGINEERING SERVICES

CONCRETE SIDEWALK

STANDARD CONSTRUCTION DETAILS PAVING

DATE: JANUARY 2022 REV. DATE: SHEET: SD-P28

- GENERAL NOTES FOR PEDESTRIAN FACILITIES
1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. ADJUST CURB RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS AS DIRECTED.
 2. LANDINGS SHALL BE 5X5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
 3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMP SHALL BE A MINIMUM OF 4'X4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
 4. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%.
 5. CURB RAMP WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.
 6. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 888.102.
 7. CURB RAMP SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY PUBLIC WORKS AND ENGINEERING SERVICES.
 8. HANDRAILS ARE NOT REQUIRED ON CURB RAMP. PROVIDE CURB RAMPS WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
 9. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.
 10. BARRIER FREE RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS).
 11. ALL BARRIER FREE RAMPS MUST PASS AN INDEPENDENT INSPECTION PROVIDED BY THE TOWN'S REGISTERED ACCESSIBILITY SPECIALIST CONSULTANT. A LETTER OF COMPLIANCE ACCEPTANCE IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE TOWN OF ADDISON.
 12. STREETS ON STEP GRADE WILL REQUIRE LONGER TRANSITION ON UPGRADE SIDE.
 13. MAXIMUM SLOPE ON RAMP PORTION SHALL NOT EXCEED 1" PER FOOT AT ANY LOCATION. VERTICAL DISTANCE BETWEEN STREET AND RAMP SHALL NOT EXCEED 1/4'.

- GENERAL NOTES FOR DETECTABLE WARNINGS
1. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 4.29 OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH THE ADJOINING SURFACES, INCLUDING SIDE FLARES. FURNISH DARK RED COLORED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE AND CREAM COLORED DETECTABLE WARNING SURFACE ADJACENT TO DARK RED COLORED BRICK PAVERS CONTRASTING COLOR APPROVED BY THE TOWN.
 2. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
 3. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
 4. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN LENGTH IN THE DIRECTION OF PEDESTRIAN TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR LANDING WHERE THE PEDESTRIAN ACCESS ROUTE ENTERS THE STREET.
 5. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS A MINIMUM OF 6" AND A MAXIMUM OF 8" FROM THE EXTENSION OF THE FACE OF CURB AND SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.

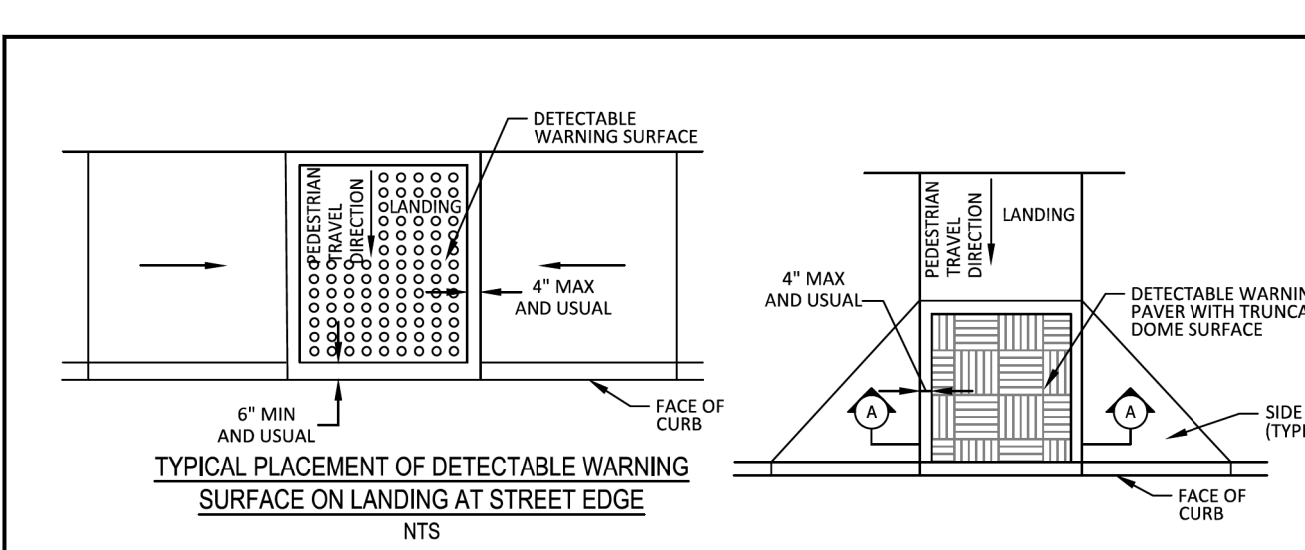
- GENERAL NOTES FOR DETECTABLE WARNING PAVER UNITS
1. DETECTABLE WARNING PAVER UNITS SHALL MEET OR EXCEED ALL REQUIREMENTS OF ASTM C936, C33, AND BE LAID IN A TWO BY TWO UNIT BASKET WEAVE PATTERN OR AS DIRECTED.
 2. LAY FULL-SIZE UNITS FIRST FOLLOWED BY CLOSURE UNITS CONSISTING OF AT LEAST 25% OF A FULL UNIT. CUT DETECTABLE WARNING PAVER UNITS USING A POWER SAW.

ADDISON PUBLIC WORKS & ENGINEERING SERVICES

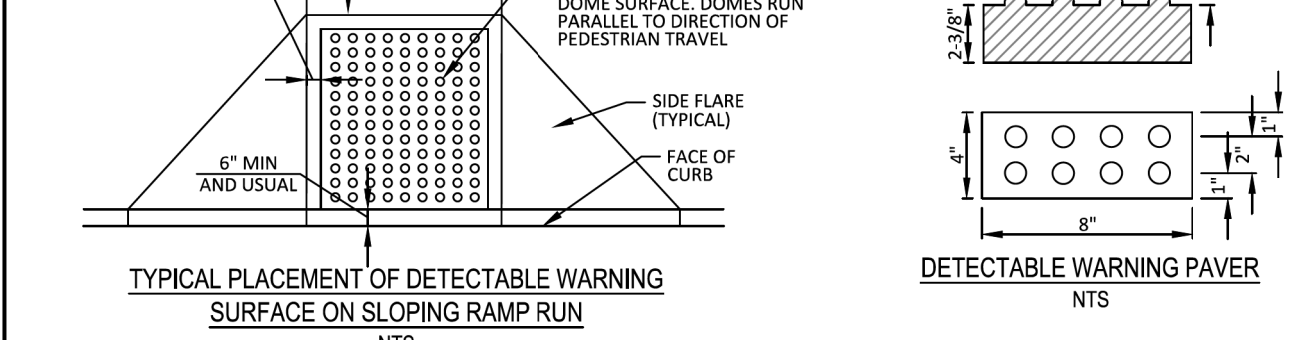
PEDESTRIAN FACILITIES GENERAL NOTES

STANDARD CONSTRUCTION DETAILS PAVING

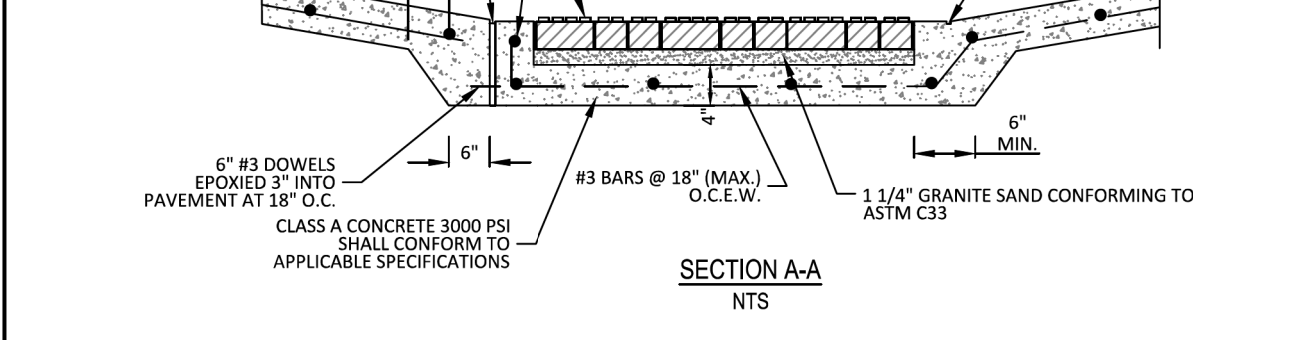
DATE: JANUARY 2022 REV. DATE: SHEET: SD-P26



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE NTS



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN NTS

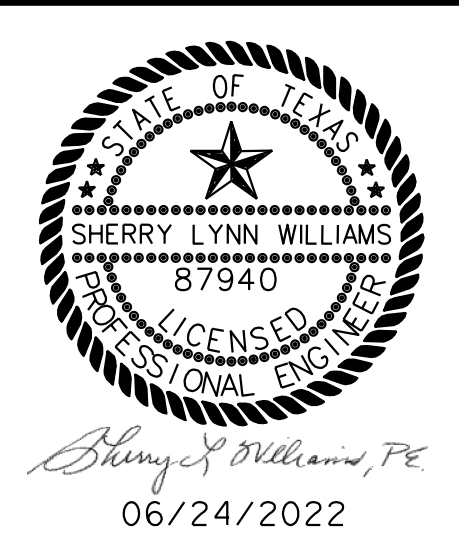


ADDISON PUBLIC WORKS & ENGINEERING SERVICES

DETECTABLE WARNING PAVER

STANDARD CONSTRUCTION DETAILS PAVING

DATE: JANUARY 2022 REV. DATE: SHEET: SD-P28



REV. NO.	DATE	DESCRIPTION	BY
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CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

CONSTRUCTION DETAILS SHEET 2 OF 5

ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		64

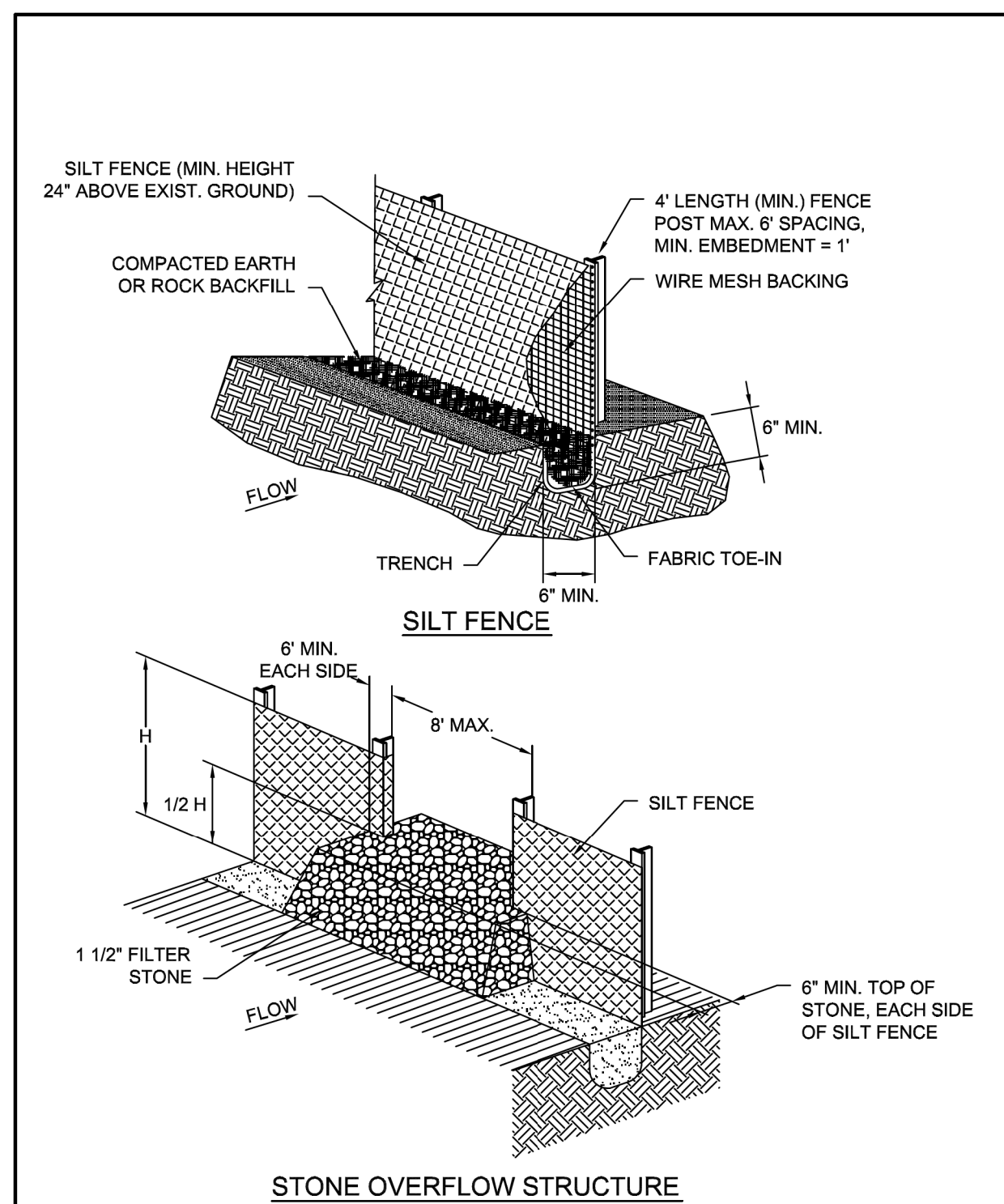
- EROSION CONTROL PLAN NOTES**
1. ALL OPERATORS AND/OR CONTRACTORS SHALL CONFORM TO THE TERMS AND CONDITIONS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), TPDES GENERAL PERMIT NO. TXR 150000 ISSUED AND DATED MARCH 5, 2003.
 2. THE NOTICE OF INTENT (NOI), AS REQUIRED BY THE GENERAL PERMIT, MUST BE PROPERLY DISPLAYED ON SITE AT ALL TIMES BY EACH OPERATOR.
 3. ALL RELEASES OF THE REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES SHALL BE REPORTED IMMEDIATELY TO THE FACILITY OPERATOR, EPA AND TCEQ.
 4. QUALIFIED OPERATOR PERSONNEL MUST INSPECT THE SITE AT LEAST ONCE EVERY 14 DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER. AS AN ALTERNATIVE, AN INSPECTION CAN BE CONDUCTED ONCE EVERY SEVEN (7) CALENDAR DAYS ON A DEFINED DAY. A DECISION ON WHICH METHOD TO USE MUST BE DECIDED BEFORE WORK BEGINS AND MUST BE FOLLOWED THROUGHOUT THE PROJECT.
 5. MODIFICATIONS TO THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE IMPLEMENTED AND BE IN-PLACE WITHIN A SEVEN CALENDAR DAY PERIOD.
 6. IF ANY CONTRACTOR SEES A VIOLATION BY AN OPERATOR OR ANOTHER CONTRACTOR, THAT OPERATOR OR CONTRACTOR IN VIOLATION SHALL BE NOTIFIED AS WELL AS THE FACILITY OPERATOR.
 7. EROSION CONTROL SHALL BE INSTALLED PRIOR TO GRADING.
 8. ACCUMULATED SILT DEPOSITS SHALL BE REMOVED FROM SILT FENCES AND HAY BALE DIKES WHEN SILT DEPTH REACHES THREE INCHES OR 25%.
 9. THE CONTRACTOR SHALL ADD OR DELETE EROSION PROTECTION AT THE REQUEST AND DIRECTION OF THE OPERATOR OR TOWN.
 10. AFTER INSTALLATION OF PAVEMENT, FINAL LOT BENCHING AND GENERAL CLEANUP, THE CONTRACTOR SHALL ESTABLISH GRASS GROUND COVER IN ALL STREET PARKWAYS, LOT AND ALL OTHER DISTURBED AREAS. SODDING SHALL BE DONE AS SPECIFIED BY SECTION 202.5 AND SEEDING AS SPECIFIED BY SECTION 202.6 OF THE OCTOBER 2004 OR LATEST EDITION OF NCTCOG STANDARD SPECIFICATION.
 11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS AND STORM DRAINAGE SYSTEMS FROM EROSION DEPOSITS.
 12. A DRAINAGE AREA MAP WILL BE INCLUDED WITH THE EROSION CONTROL PLAN.
 13. CONSTRUCTION WASTE DISPOSAL CONTAINERS SHALL BE PROVIDED ON THE SITE FOR DISPOSAL OF ALL NON-HAZARDOUS CONSTRUCTION WASTE MATERIALS. THE CONTAINERS SHALL BE HAULED TO LANDFILL BY THE CONTRACTOR.
 14. ALL HAZARDOUS MATERIALS SHALL BE HANDLED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
- SILT FENCE NOTES**
1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. THE POSTS MUST BE EMBEDDED A MINIMUM OF 18 INCHES.
 2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON THE UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
 3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
 4. SILT FENCES SHALL BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE SUPPORT POST. THERE SHALL BE A 6 INCH DOUBLE OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
 5. INSPECTION SHALL BE MADE EVERY TWO WEEKS OR AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
 6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
 7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 3 INCHES. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

Addison!
PUBLIC WORKS DEPARTMENT

EROSION CONTROL & SILT FENCE NOTES

STANDARD CONSTRUCTION DETAILS
EROSION CONTROL

DATE: AUGUST, 2010 REV DATE: SHEET: SD-EC01

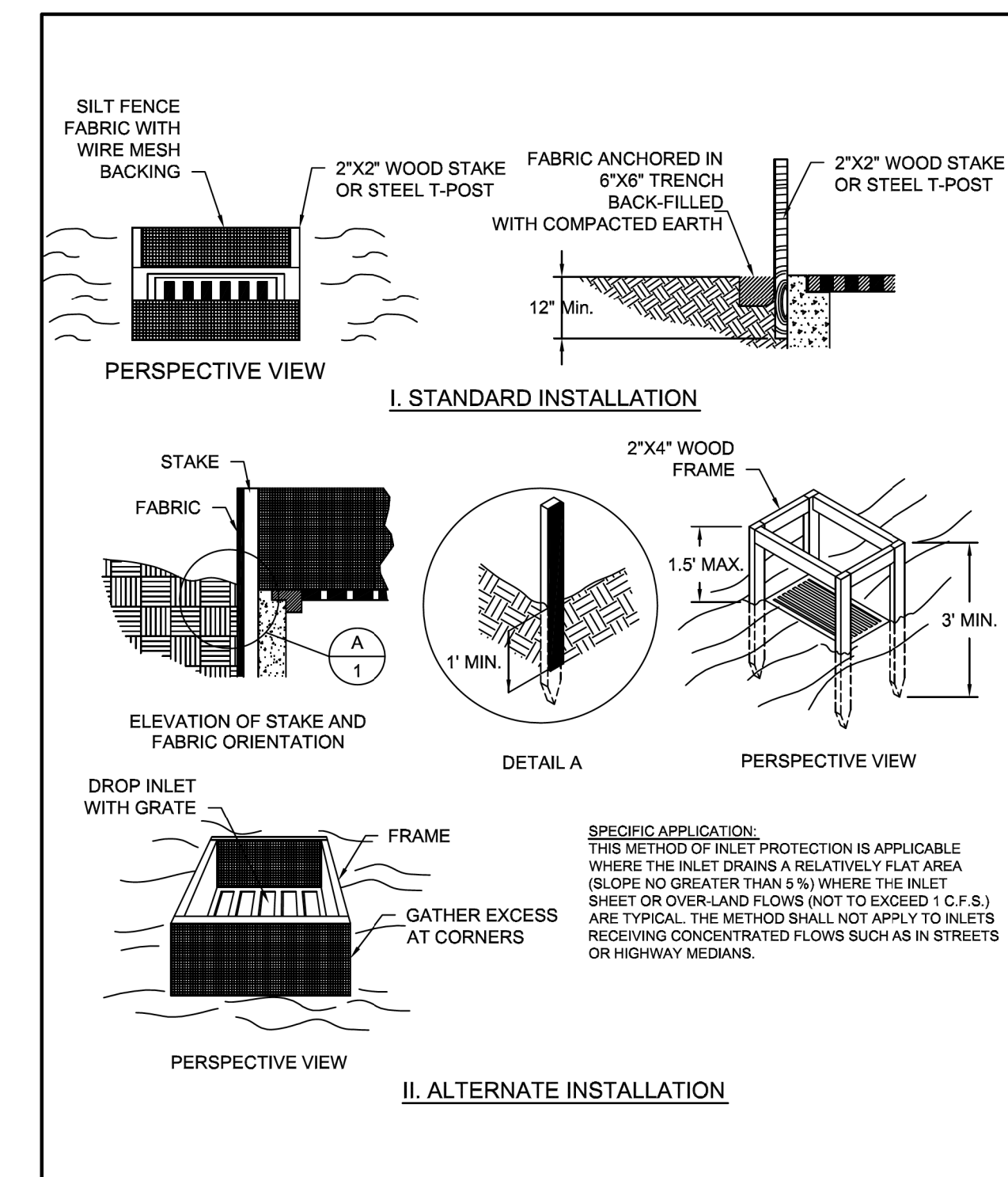


SILT FENCE

North Central Texas Council of Governments STANDARD SPECIFICATION REFERENCE: 202.5*

DATE: OCT. '04 STANDARD DRAWING NO.: 1020A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. Public Works Construction Standards North Central Texas, Fifth Edition.

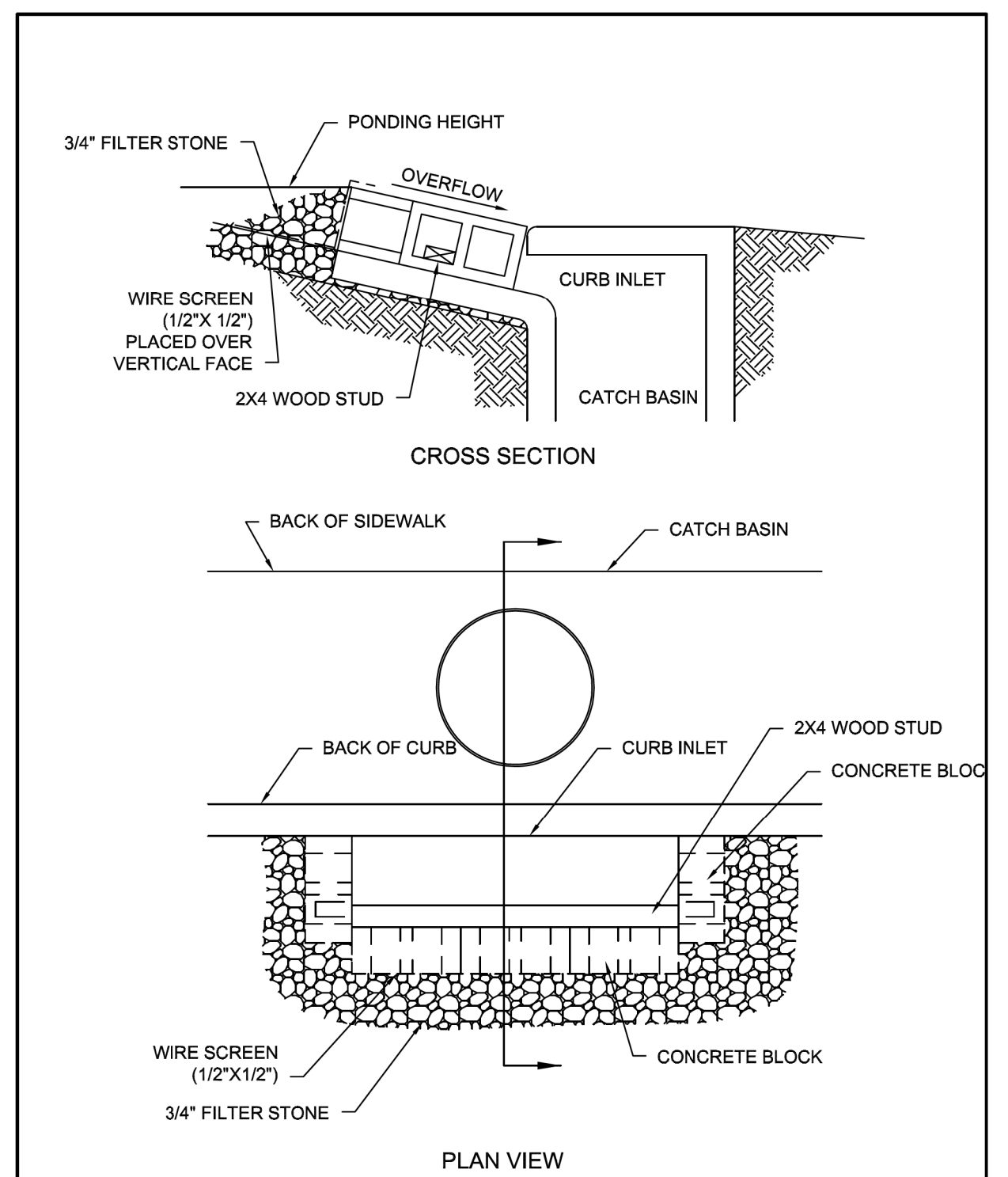


INLET PROTECTION FILTER BARRIER

North Central Texas Council of Governments STANDARD SPECIFICATION REFERENCE: 202.14*

DATE: OCT. '04 STANDARD DRAWING NO.: 1120

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. Public Works Construction Standards North Central Texas, Fifth Edition.

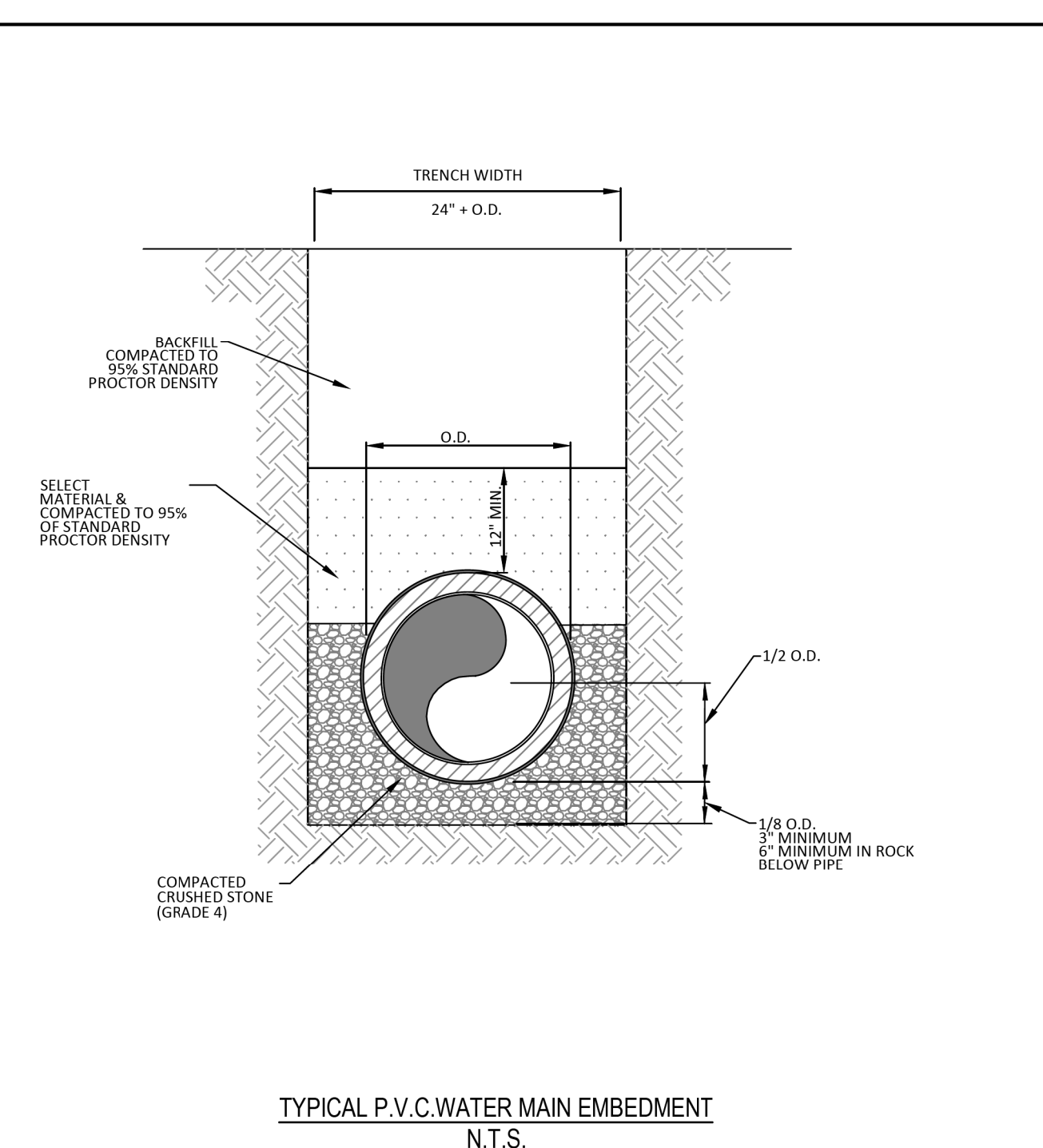


INLET PROTECTION-CURB

North Central Texas Council of Governments STANDARD SPECIFICATION REFERENCE: 202.14*

DATE: OCT. '04 STANDARD DRAWING NO.: 1140

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. Public Works Construction Standards North Central Texas, Fifth Edition.

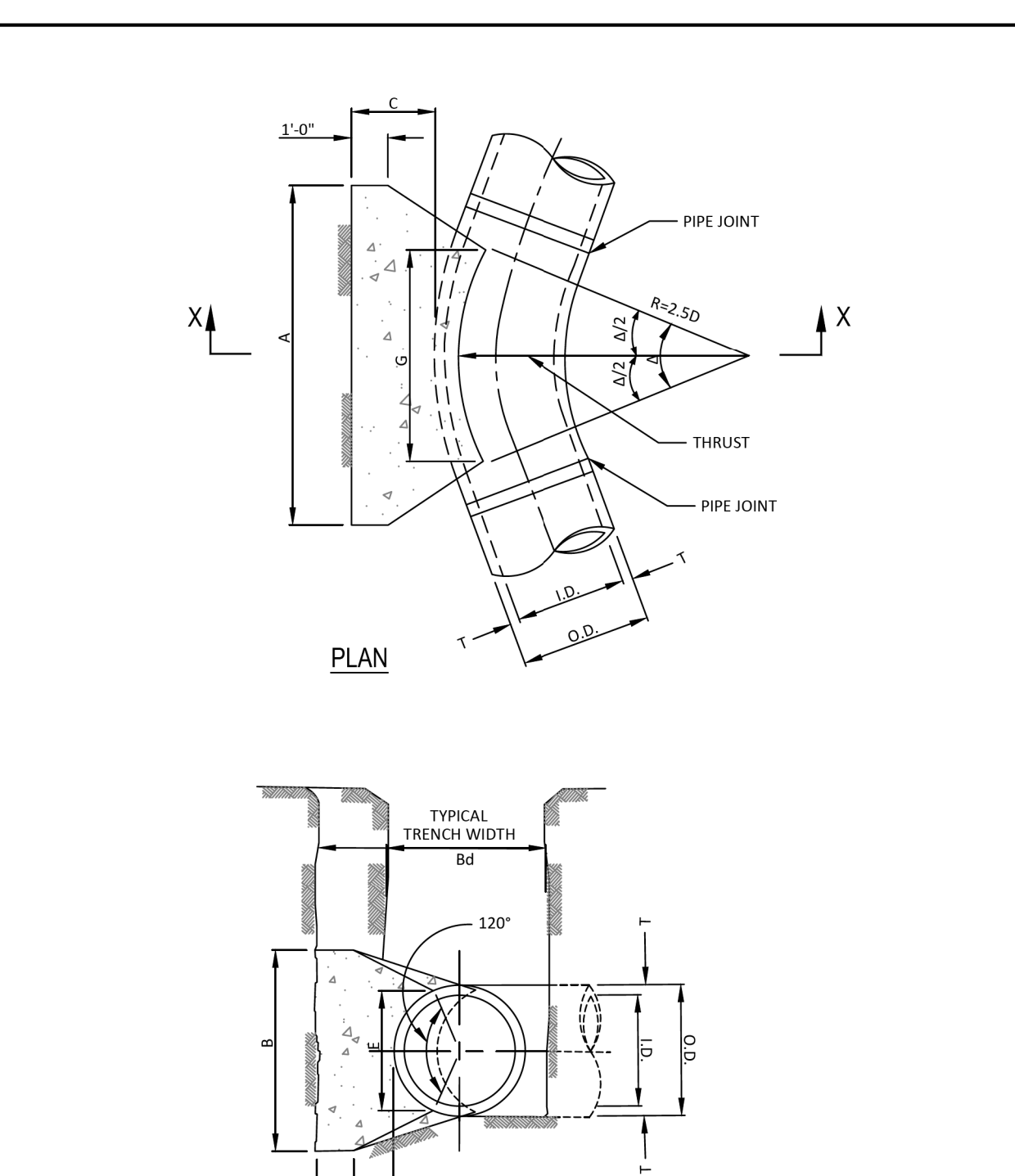


Addison! PUBLIC WORKS & ENGINEERING SERVICES

P.V.C. WATER MAIN EMBEDMENT

STANDARD CONSTRUCTION DETAILS
WASTEWATER

DATE: JANUARY 2022 REV DATE: SHEET: SD-W01

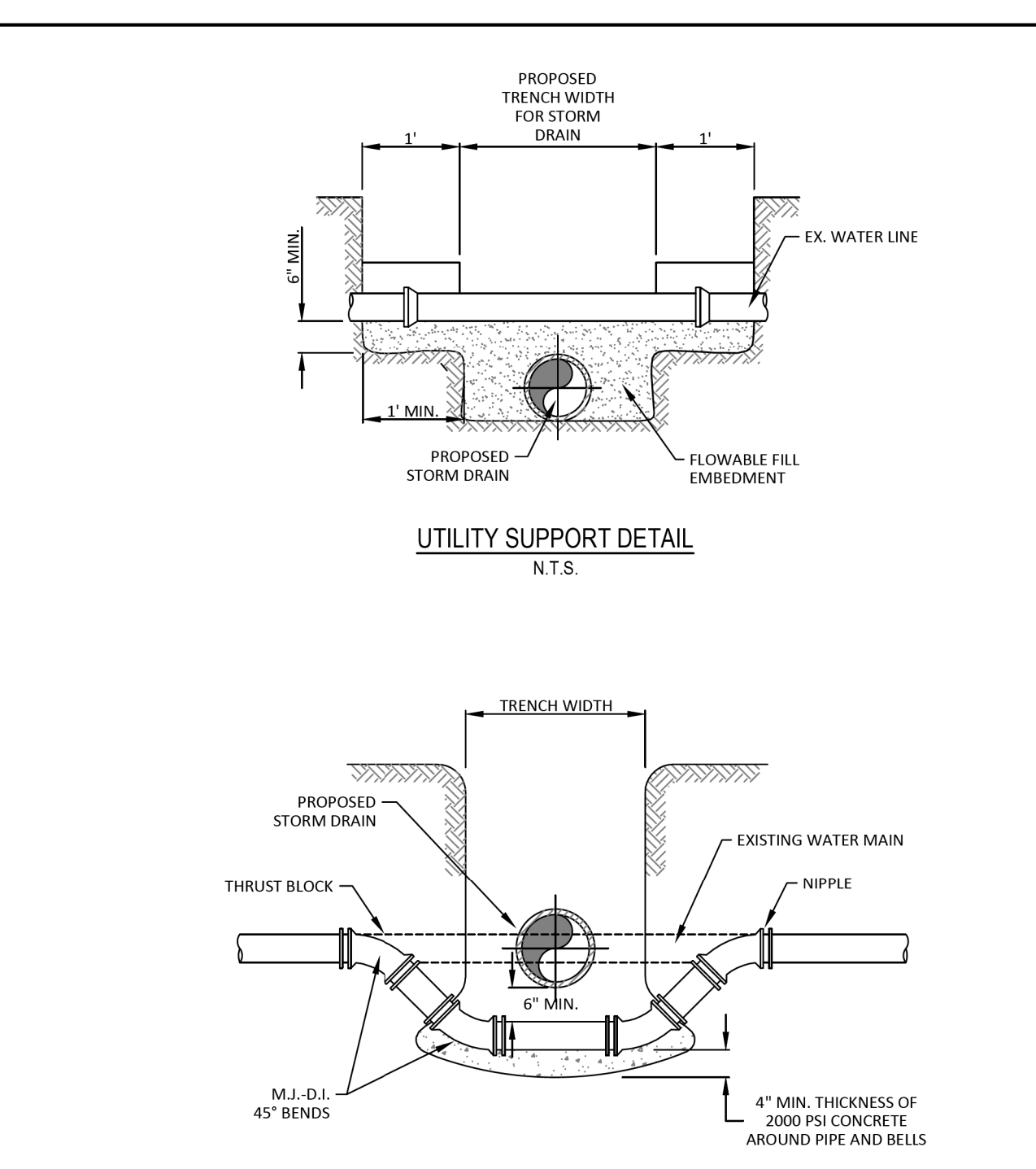


Addison! PUBLIC WORKS & ENGINEERING SERVICES

HORIZONTAL THRUST BLOCK AT PIPE BEND

STANDARD CONSTRUCTION DETAILS
WASTEWATER

DATE: JANUARY 2022 REV DATE: SHEET: SD-W04



Addison! PUBLIC WORKS & ENGINEERING SERVICES

WATER MAIN LOWERING & UTILITY SUPPORT DETAILS

STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

DATE: JANUARY 2022 REV DATE: SHEET: SD-003

STATE OF TEXAS
SHERRY LYNN WILLIAMS
LICENSED PROFESSIONAL ENGINEER
37940
Blaney & Williams, P.C.
06/24/2022

REV. NO.	DATE	DESCRIPTION	BY
1			
2			

ADDISON

CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

CONSTRUCTION DETAILS SHEET 3 OF 5

ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS

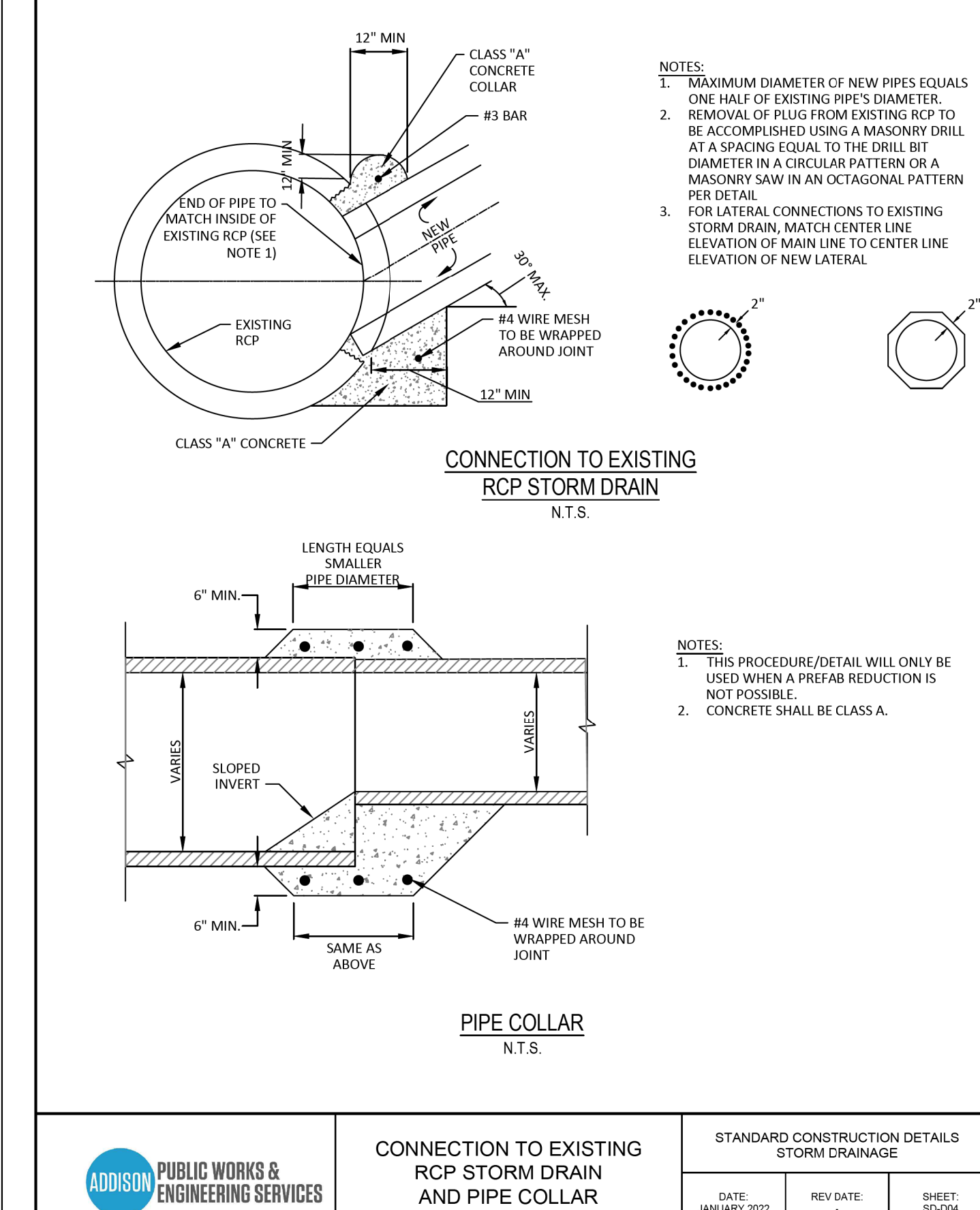
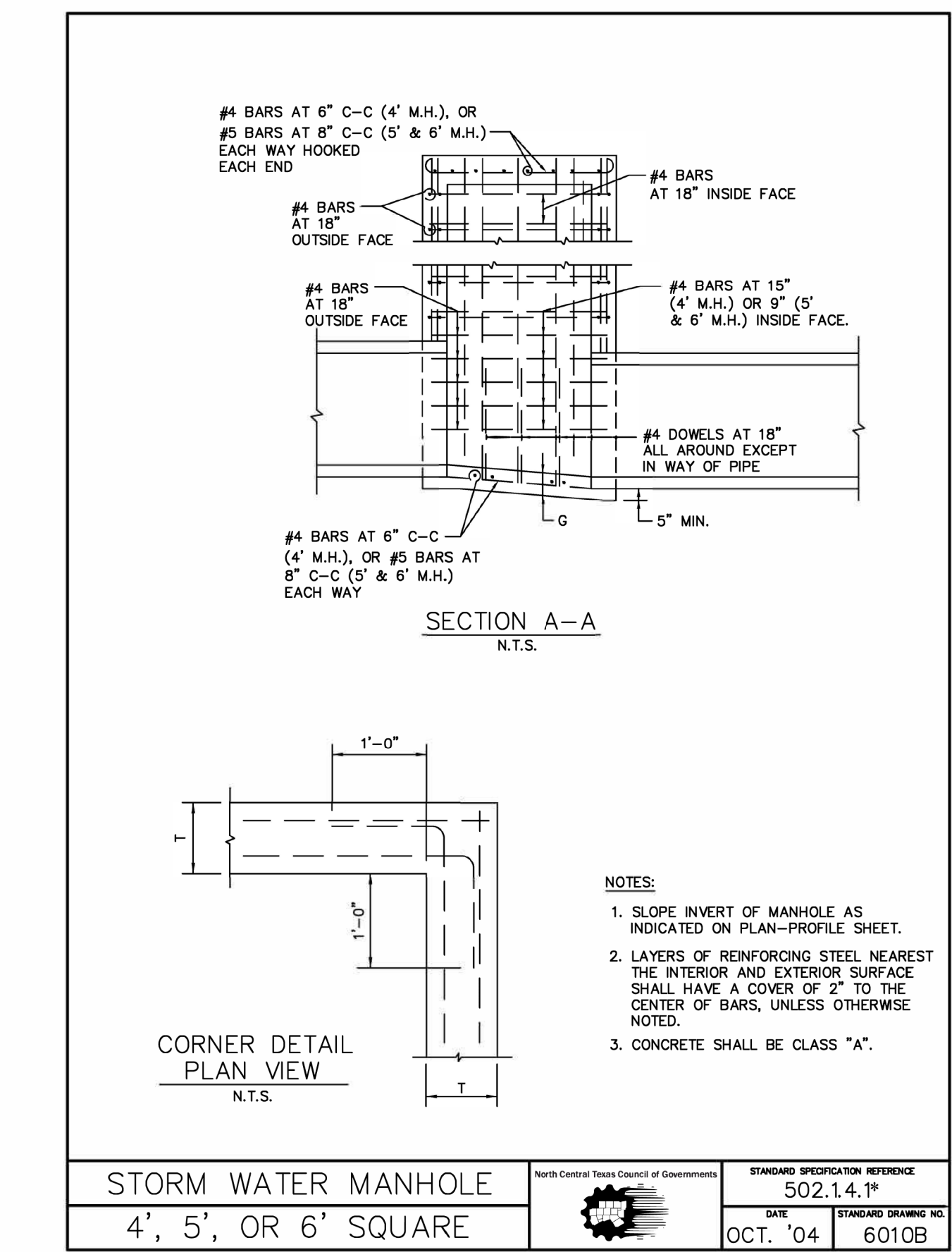
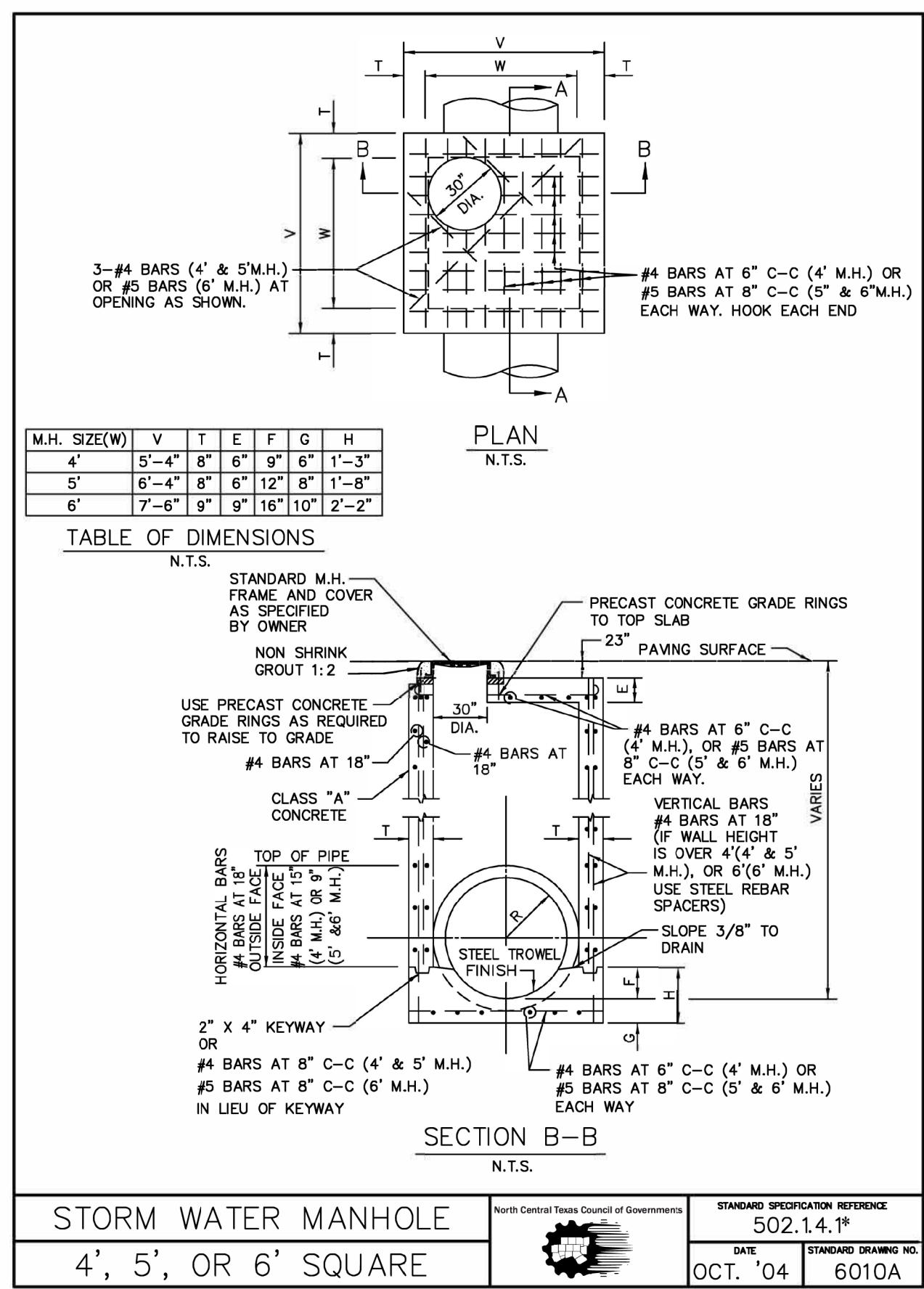
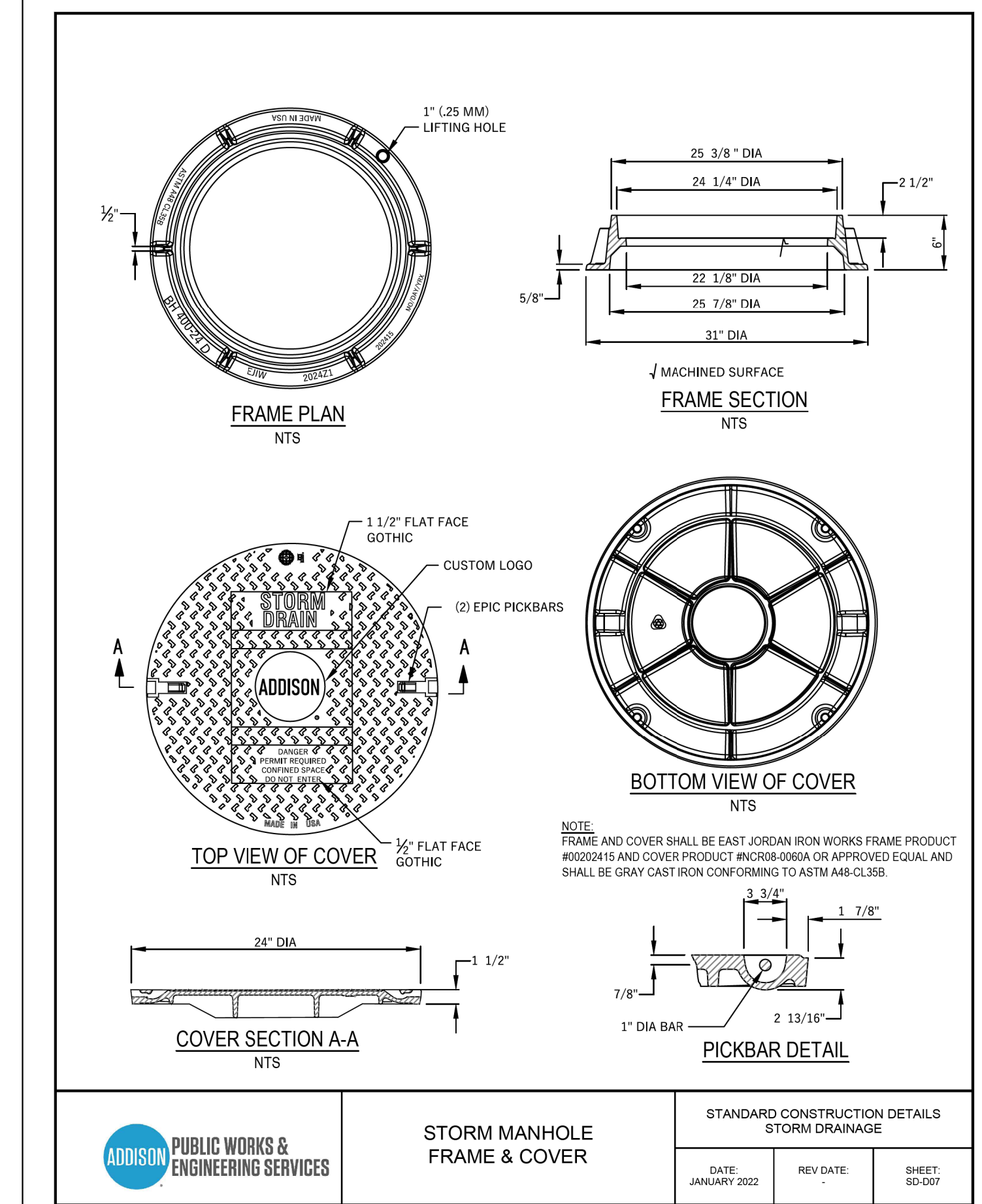
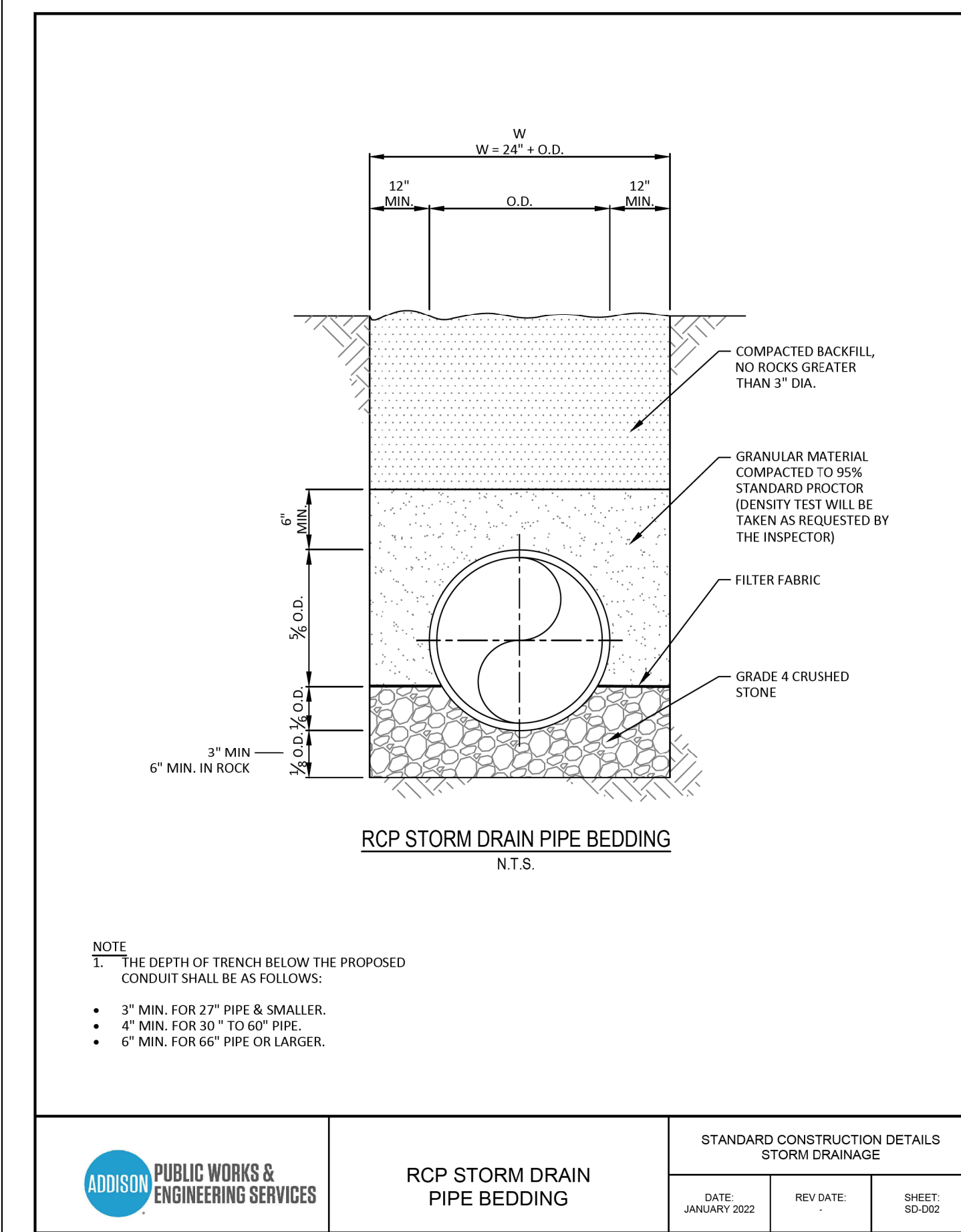
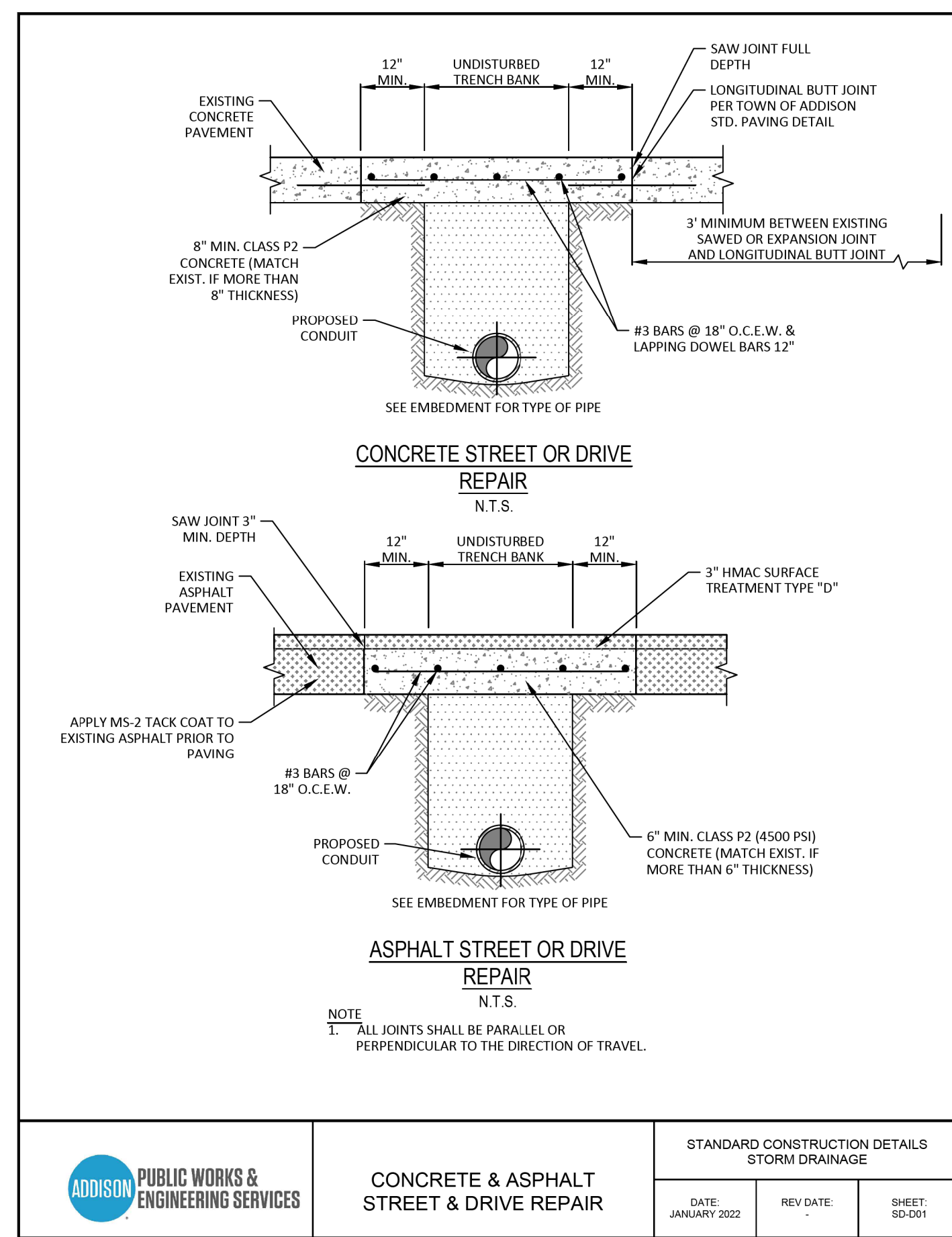
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		65

3:49:40 PM 6/27/2022 N:\PROJECTR\14799.00_Addison_Rawhide-Creek-Basin-Drainage\07_DGN\076_Sheets\076-09_Environmental\Standard Details\14799-CD-03.dgn

4. GENERAL NOTES FOR STORM DRAIN SYSTEMS

- 4.1. ALL STORM DRAIN CONSTRUCTION, TESTING, AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF NCTCOG'S SPECIFICATIONS AND DETAILS, AND THE TOWN'S CURRENT STANDARDS, DETAILS, AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- 4.2. TRENCH SAFETY
 - 4.2.1. PRIVATE DEVELOPMENT: CONTRACTOR SHALL SUBMIT A TRENCH SAFETY PLAN TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING.
 - 4.2.2. PUBLIC PROJECTS: CONTRACTOR AND/OR DESIGN ENGINEER SHALL SUBMIT A TRENCH SAFETY PLAN AS PART OF THE CIVIL CONSTRUCTION DOCUMENTS PACKAGE.
- 4.3. ALL CONCRETE DRAINAGE STRUCTURES SHALL BE MINIMUM CLASS C CONCRETE.
- 4.4. ALL CRUSHED STONE SHALL BE 3/4", PASSING #4 SIEVE (GRADE 4).
- 4.5. ALL FIELD JOINTS WILL BE APPROVED BY THE TOWN ENGINEER IF NECESSARY. FIELD JOINTS SHALL BE WIPED ON THE INSIDE AND OUTSIDE AND PROVIDE FOR SMOOTH FLOW OF WATER.
- 4.6. RAMNECK COMPOUND OR APPROVED EQUAL SHALL BE USED FOR JOINT SEALS.
- 4.7. CLEANING & INSPECTION
 - 4.7.1. ALL STORM SEWER PIPE SHALL BE CAMERA INSPECTED AFTER THE INSTALLATION OF ALL PAVING AND UTILITIES AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
 - 4.7.2. CONTRACTOR SHOULD INSPECT ALL STORM DRAIN OUTFALLS NO EARLIER THAN ONE WEEK PRIOR TO FINAL INSPECTION AND REMOVE ALL SILT AND DEBRIS.



06/24/2022

REV. NO.	DATE	DESCRIPTION	BY
1			

CONSTRUCTION DETAILS
SHEET 4 OF 5

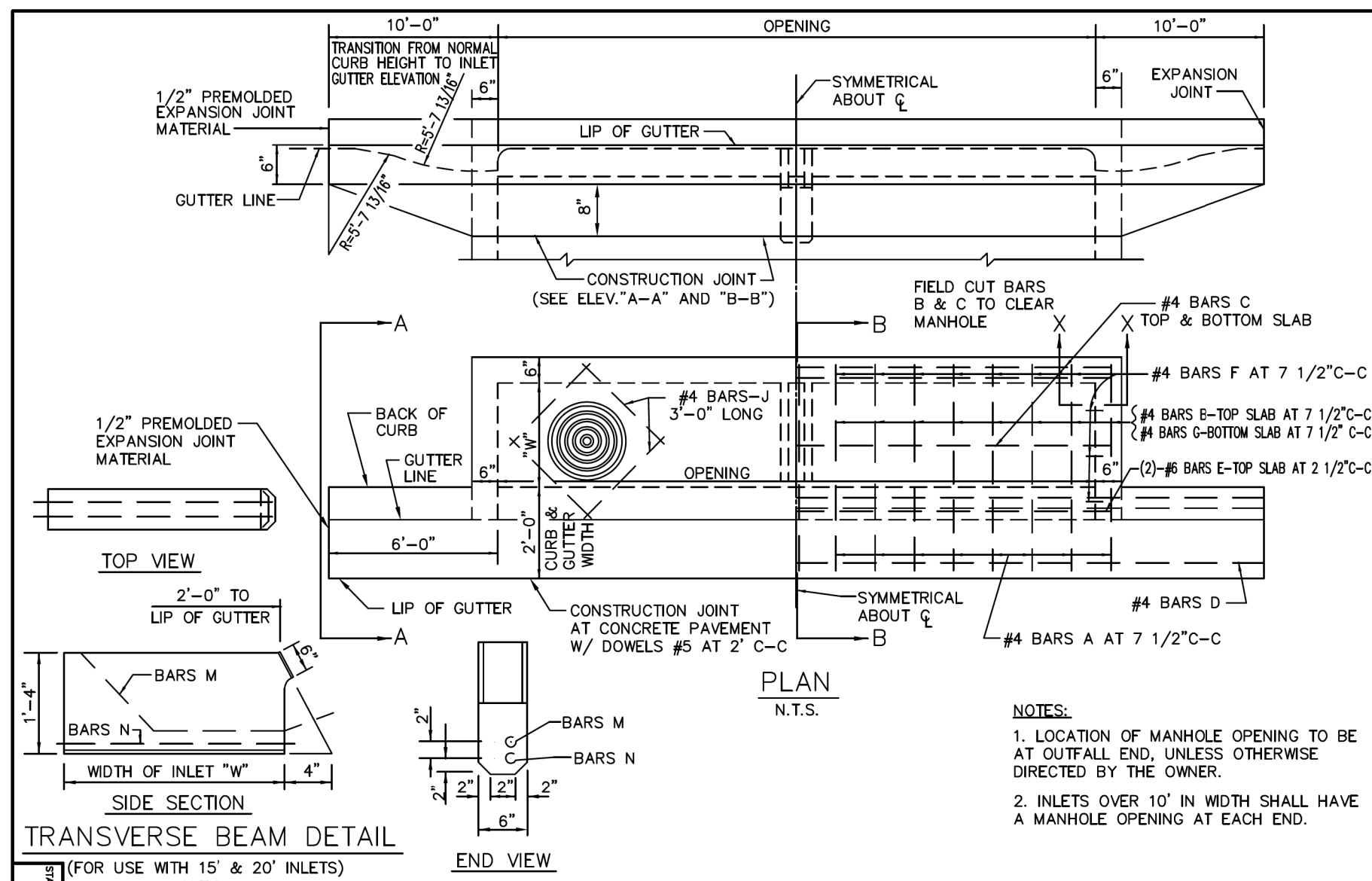
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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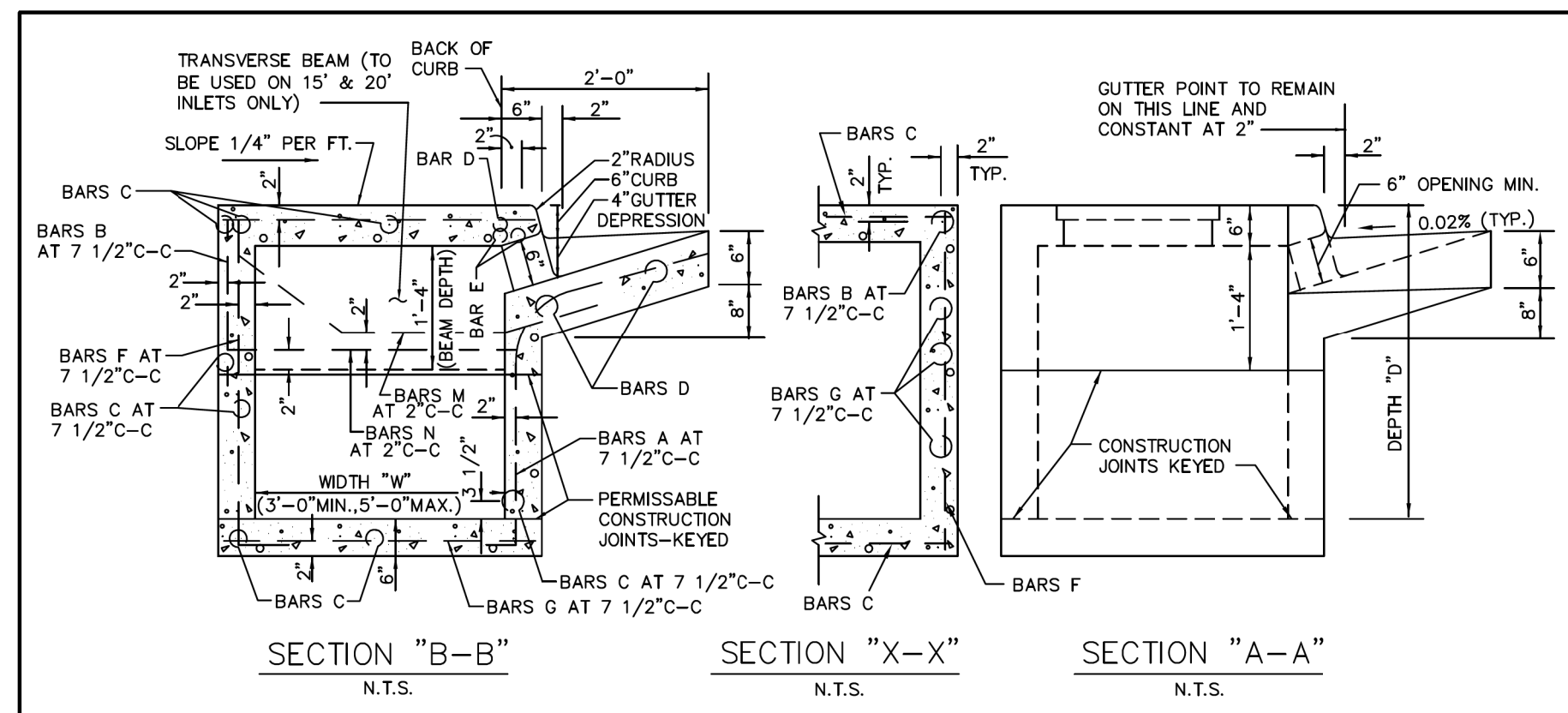
4100 SPRING VALLEY ROAD, SUITE 1001 DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192 FIRM NO. F-4373

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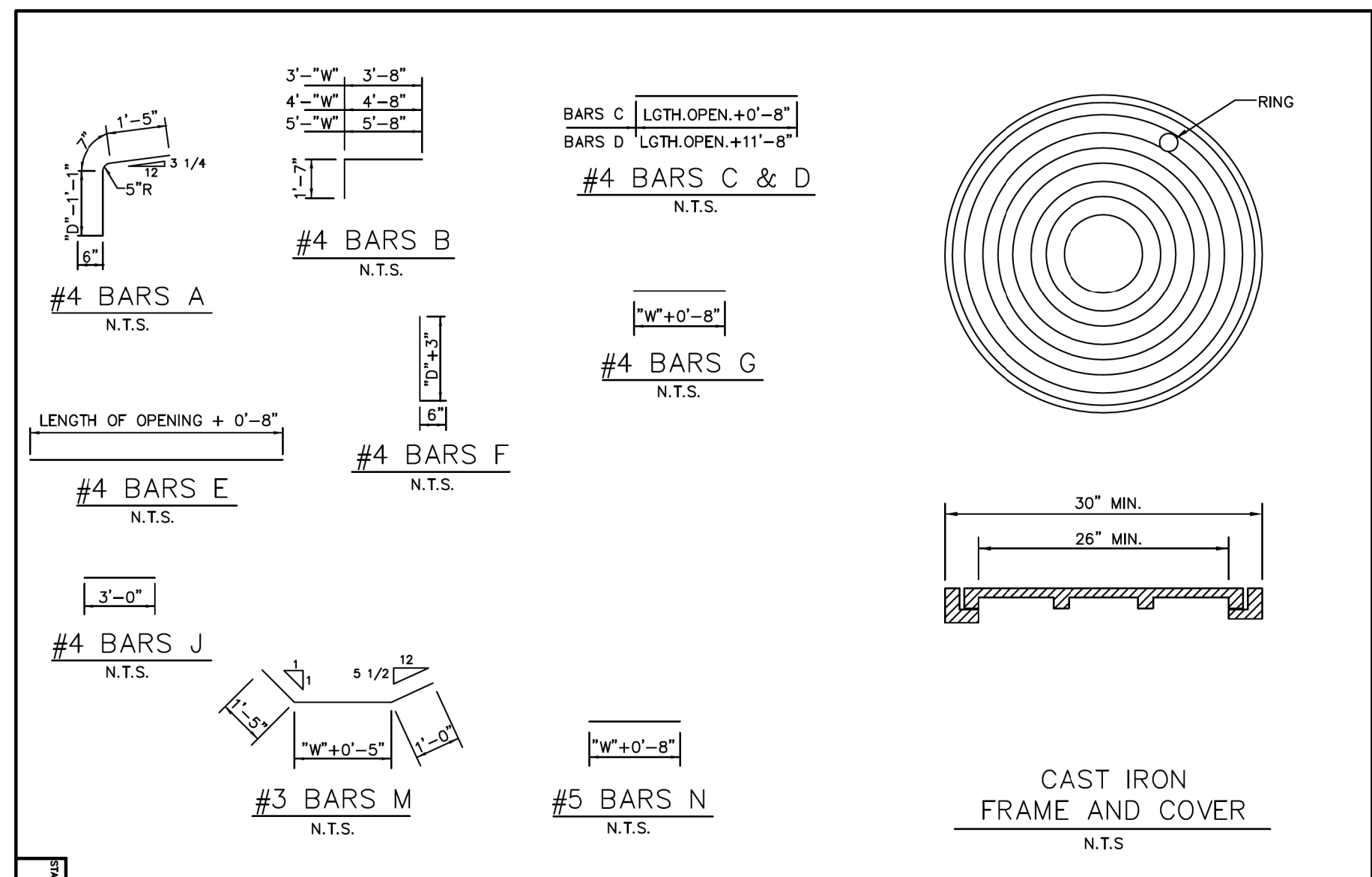
CURB INLET
5', 10', 15' OR 20' OPENING

North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04
STANDARD DRAWING NO. 6020A



CURB INLET
CROSS SECTION & INLET THROAT

North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04
STANDARD DRAWING NO. 6020B



CURB INLET
REBAR & M.H. FRAME & COVER

North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04
STANDARD DRAWING NO. 6020C

DEPTH "D"	BILL OF REINFORCING STEEL																															
	OPENING LENGTH "L" = 5ft								OPENING LENGTH "L" = 10ft								OPENING LENGTH "L" = 15ft								OPENING LENGTH "L" = 20ft							
	ALL AND LENGTHS		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"		Widths "W"	
3'-6"	C	D	E	F	F	F	A	B	G	F	F	F	A	B	G	F	F	A	B	G	M	N	F	F	F	A	B	G	M	N		
3'-0"	17	3	2	4	20	24	28	10	10	20	28	32	36	18	28	36	40	44	26	36	2	2	44	48	52	34	34	44	2	2		
4'-0"	19	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
4'-6"	21	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
5'-0"	23	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
5'-6"	25	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
6'-0"	27	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
6'-6"	29	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
7'-0"	31	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
7'-6"	33	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
8'-0"	35	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
8'-6"	37	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
9'-0"	39	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
9'-6"	41	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
10'-0"	43	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	

CURB INLET
BILL OF REINFORCING STEEL

North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04
STANDARD DRAWING NO. 6020D

DEPTH "D"	SUMMARY OF QUANTITIES FOR CURB INLETS																																																
	5'-0" OPENING								10'-0" OPENING								15'-0" OPENING								20'-0" OPENING																								
	WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"																				
3'-6"	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL	CONC	STEEL																			
3'-0"	2.62	306	2.95	332	3.28	373	4.12	479	4.64	521	5.20	594	5.69	667	6.40	721	7.10	775	7.20	846	8.11	909	9.03	976	3'-0"	2.70	309	3.04	341	3.39	373	4.25	494	4.78	536	5.34	579	5.87	687	6.58	741	7.30	796	7.42	874	8.34	937	9.27	1010
4'-0"	2.78	328	3.14	364	3.49	399	4.38	518	4.92	565	5.49	610	6.05	718	6.77	776	7.49	835	7.64	909	8.58	976	9.51	1046	4'-0"	2.87	334	3.23	370	3.59	406	4.51	526	5.06	573	5.64	619	6.22	729	6.95	787	7.69	847	7.87	922	8.81	990	9.75	1061
4'-6"	2.95	356	3.32	399	3.69	431	4.64	558	5.20	607	5.79	656	6.40	770	7.14	830	7.88	891	8.09	973	9.04	1043	9.99	1115	4'-6"	3.03	361	3.41	410	3.79	438	4.77	566	5.34	616	5.94	665	6.57	780	7.32	841	8.07	903	8.31	986	9.27	1056	10.23	1129
5'-0"	3.12	387	3.51	416	3.90	445	4.90	574	5.47	624	6.09	674	6.75	791	7.51	853	8.27	915	8.53	999	9.50	1070	10.47	1144	5'-0"	3.20	383	3.60	424	4.00	465	5.03	600	5.61	652	6.23	704	6.93	827	7.69	890	8.46	955	8.76	1044	9.73	1118	10.71	1194
5'-6"	3.28	389	3.69	430	4.10	472	5.16	608	5.75	661	6.38	713	7.11	837	7.88	901	8.66	967	8.98	1057	9.97	1131	10.95	1208	5'-6"	3.37	405	3.78	451	4.20	495	5.29	635	5.89	690	6.53	744	7.28	874	8.07	940	8.85	1007	9.20	1102	10.20	1178	11.19	1258
6'-0"	3.45	415	3.88	460	4.30	504	5.42	646	6.03	702	6.68	757	7.45	868	8.25	954	9.05	1022	9.42	1119	10.43	1196	11.43	1276	6'-0"	3.53	425	3.97	470	4.41	515	5.55	661	6.17	718	6.83	773	7.63	908	8.44	975	9.24	1044	9.64	1147	10.66	1223	11.67	1305
6'-6"	3.62	437	4.06	486	4.51	532	5.68	681	6.31	739	6.97	797	7.81	935	8.62	1005	9.43	1057	9.87	1178	10.89	1258	11.92	1340	6'-6"	3.70	441	4.15	490	4.61	537	5.81	688	6.45	747	7.12	806	7.98	945	8.81	1015	9.63	1066	10.09	1191	11.12	1272	12.15	1355
7'-0"	3.78	460	4.25	510	4.71	560	5.94	716	6.59	777	7.27	837	8.16	981	8.99	1053	9.82	1126	10.31	1237	11.35	1319	12.40	1404	7'-0"	3.86	465	4.34	516	4.81	567	6.07	724	6.72	785	7.42	846	8.33	992	9.18	1065	10.02	1138	10.53	1249	11.59	1333	12.64	1418
7'-6"	3.95	477	4.43	529	4.91	570	6.20	742	6.86	804	7.57	866	8.51	1016	9.36	1089	10.21	1163	10.75	1290	11.82	1365	12.88	1451	7'-6"	4.03	491	4.53	544	5.02	597	6.33	762	7.00	826	7.71	890	8.67	1040	9.55	1116	10.41	1193	10.98	1313	12.05	1399	13.12	1498
8'-0"	4.12	496	4.62	550	5.12	604	6.46	770	7.14	834	7.86	899	8.86	1051	9.73	1129	10.60	1205	11.20	1325	12.28	1412	13.36	1510	8'-0"	4.20	504	4.71	559	5.22	613	6.59	784	7.28	849	8.01	915	9.04	1069	9.92	1149	10.80	1228	11.42	1353	12.51	1440	13.60	1529
8'-6"	4.29	519	4.80	576	5.32	632	6.71	804	7.42	871	8.16	938	9.21	1107	10.10	1176	10.99	1257	11.64	1385	12.74	1474	13.84	1565	8'-6"	4.37	528	4.90	586	5.42	643	6.84	819	7.56	886	8.31	954	9.39	1119	10.29	1199	11.18	1280	11.87	1410	12.91	1500	14.08	1592
9'-0"	4.45	545	4.99	605	5.53	664	6.97	842	7.70	912	8.46	982	9.56	1148	10.47	1231	11.38	1313	12.09	1447	13.21	1539	14.32	1631	9'-0"	4.53	554	5.08	614	5.63	674	7.10	858	7.84	929	8.60	999	9.74	1169	10.66	1252	11.57	1335	12.31	1474	13.44	1563	14.56	1660
9'-6"	4.62	568	5.17	630	5.73	692	7.23	878	7.97	950	8.75	1022	9.92	1195	10.84	1280	11.77	1365	12.53	1505	13.67	1600	14.80	1696	9'-6"	4.78	582	5.36	645	5.93	708	7.49	900	8.11	974	9.05	1048	10.27	1227	11.21	1312	12.16	1399	12.98	1546	14.13	1642	15.29	1739

CURB INLET
SUMMARY OF QUANTITIES

North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04
STANDARD DRAWING NO. 6020E

ADDISON

CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001 DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

CONSTRUCTION DETAILS
SHEET 5 OF 5

ADDISON RAWHIDE BASIN
DRAINAGE AND SIDEWALK IMPROVEMENTS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		67

3:50:18 PM 6/27/2022 N:\PROJECTR\14799.00_Addison_Rawhide-Creek-Basin-Drainage\07_DGN\076_Sheets\076-05_Drainage\Standards Sheets (95%)\14799-CD-05.dgn

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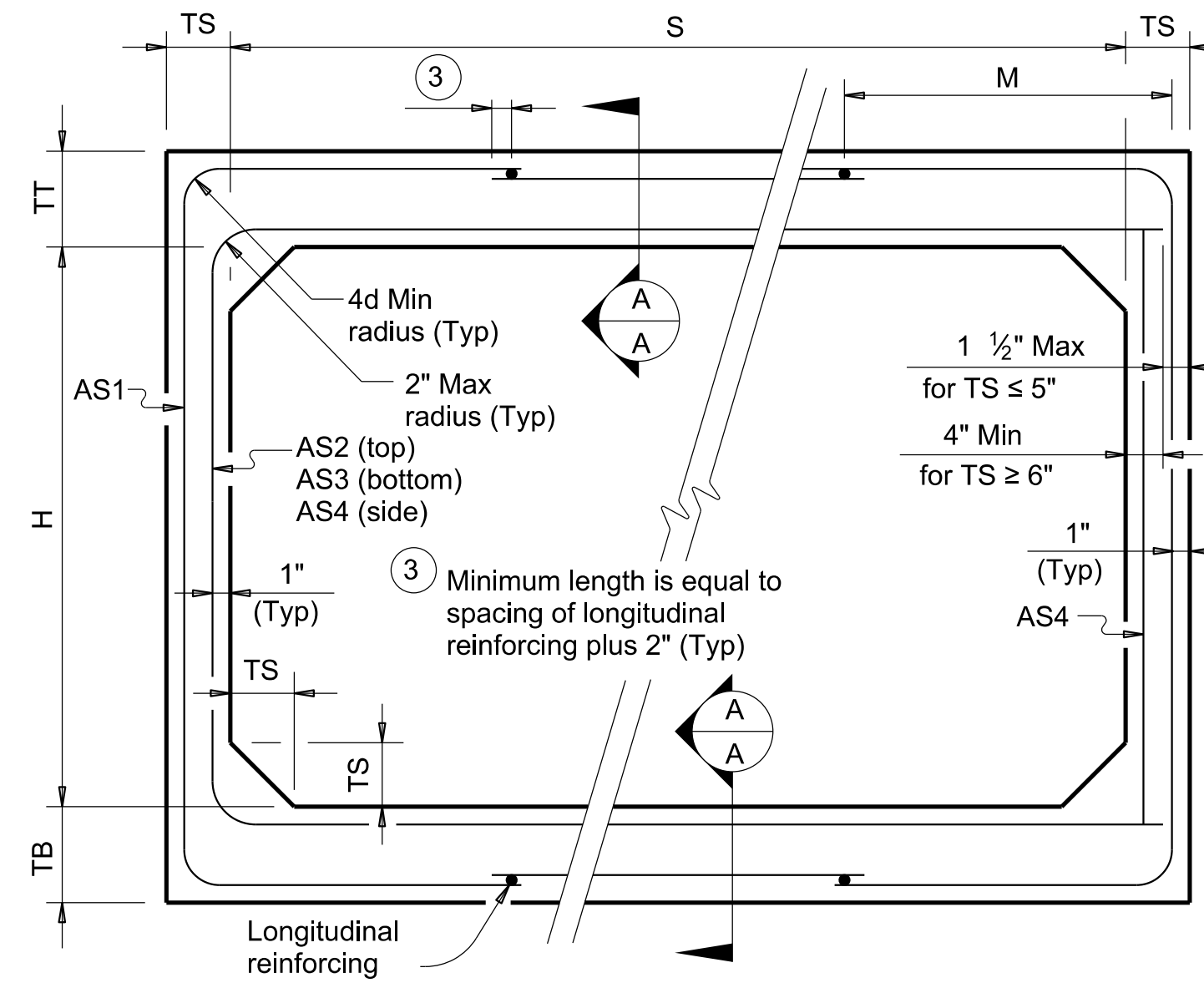
DATE:
FILE:

BOX DATA

SECTION DIMENSIONS					Fill Height (ft.)	M (Min) (in.)	REINFORCING (sq. in. / ft.) ^②							① Lift Weight (tons)
S (ft.)	H (ft.)	TT (in.)	TB (in.)	TS (in.)			AS1	AS2	AS3	AS4	AS5	AS7	AS8	
5	2	8	7	6	< 2	-	0.19	0.27	0.18	0.14	0.19	0.19	0.17	6.0
5	2	6	6	6	2 < 3	44	0.22	0.20	0.16	0.14	-	-	-	5.1
5	2	6	6	6	3 - 5	44	0.16	0.14	0.14	0.14	-	-	-	5.1
5	2	6	6	6	10	36	0.15	0.14	0.14	0.14	-	-	-	5.1
5	2	6	6	6	15	36	0.20	0.18	0.18	0.14	-	-	-	5.1
5	2	6	6	6	20	36	0.26	0.23	0.24	0.14	-	-	-	5.1
5	2	6	6	6	25	36	0.33	0.29	0.29	0.14	-	-	-	5.1
5	2	6	6	6	30	36	0.39	0.34	0.35	0.14	-	-	-	5.1
5	3	8	7	6	< 2	-	0.19	0.31	0.21	0.14	0.19	0.19	0.17	6.6
5	3	6	6	6	2 < 3	45	0.18	0.24	0.19	0.14	-	-	-	5.7
5	3	6	6	6	3 - 5	36	0.14	0.17	0.16	0.14	-	-	-	5.7
5	3	6	6	6	10	36	0.14	0.16	0.17	0.14	-	-	-	5.7
5	3	6	6	6	15	35	0.16	0.21	0.22	0.14	-	-	-	5.7
5	3	6	6	6	20	35	0.21	0.27	0.28	0.14	-	-	-	5.7
5	3	6	6	6	25	35	0.26	0.34	0.34	0.14	-	-	-	5.7
5	3	6	6	6	30	35	0.31	0.41	0.41	0.14	-	-	-	5.7
5	4	8	7	6	< 2	-	0.19	0.33	0.24	0.14	0.19	0.19	0.17	7.2
5	4	6	6	6	2 < 3	45	0.16	0.27	0.22	0.14	-	-	-	6.3
5	4	6	6	6	3 - 5	45	0.14	0.19	0.18	0.14	-	-	-	6.3
5	4	6	6	6	10	36	0.14	0.18	0.18	0.14	-	-	-	6.3
5	4	6	6	6	15	35	0.14	0.23	0.24	0.14	-	-	-	6.3
5	4	6	6	6	20	35	0.17	0.30	0.31	0.14	-	-	-	6.3
5	4	6	6	6	25	35	0.21	0.37	0.38	0.14	-	-	-	6.3
5	4	6	6	6	30	35	0.25	0.44	0.45	0.14	-	-	-	6.3
5	5	8	7	6	< 2	-	0.19	0.35	0.26	0.14	0.19	0.19	0.17	7.8
5	5	6	6	6	2 < 3	45	0.14	0.29	0.24	0.14	-	-	-	6.9
5	5	6	6	6	3 - 5	45	0.14	0.21	0.20	0.14	-	-	-	6.9
5	5	6	6	6	10	45	0.14	0.19	0.20	0.14	-	-	-	6.9
5	5	6	6	6	15	36	0.14	0.24	0.25	0.14	-	-	-	6.9
5	5	6	6	6	20	35	0.15	0.31	0.32	0.14	-	-	-	6.9
5	5	6	6	6	25	35	0.18	0.38	0.39	0.14	-	-	-	6.9
5	5	6	6	6	30	35	0.21	0.46	0.47	0.14	-	-	-	6.9

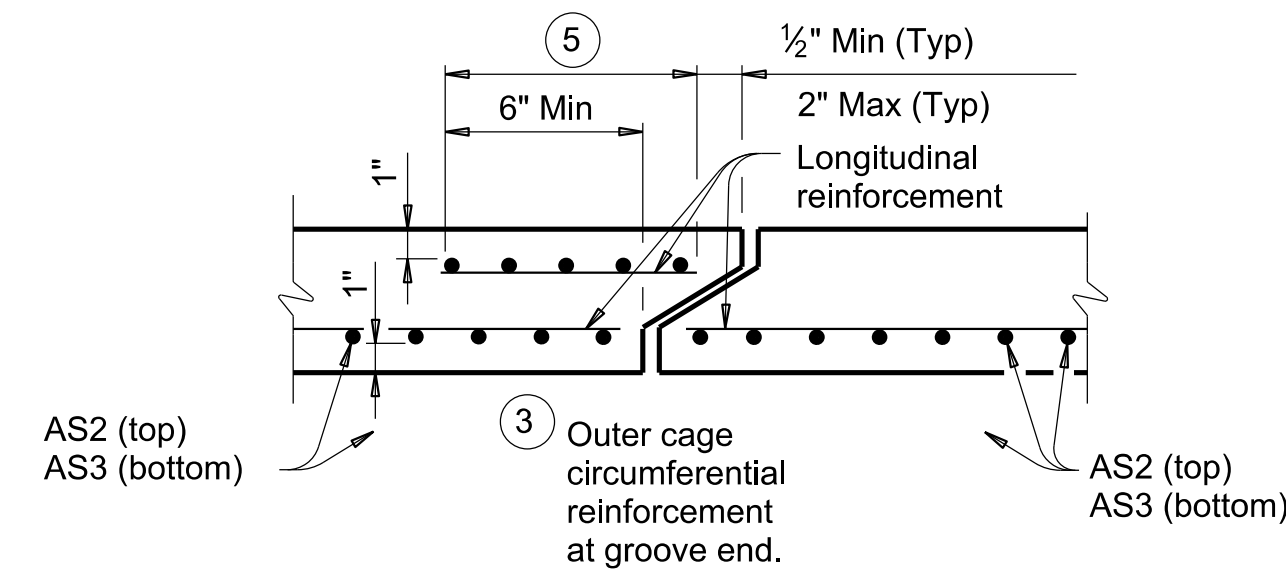
① For box length = 8'-0"

② AS1 thru AS4, AS7 and AS8 are minimum required areas of reinforcement per linear foot of box length. AS5 is minimum required area of reinforcement per linear foot of box width.



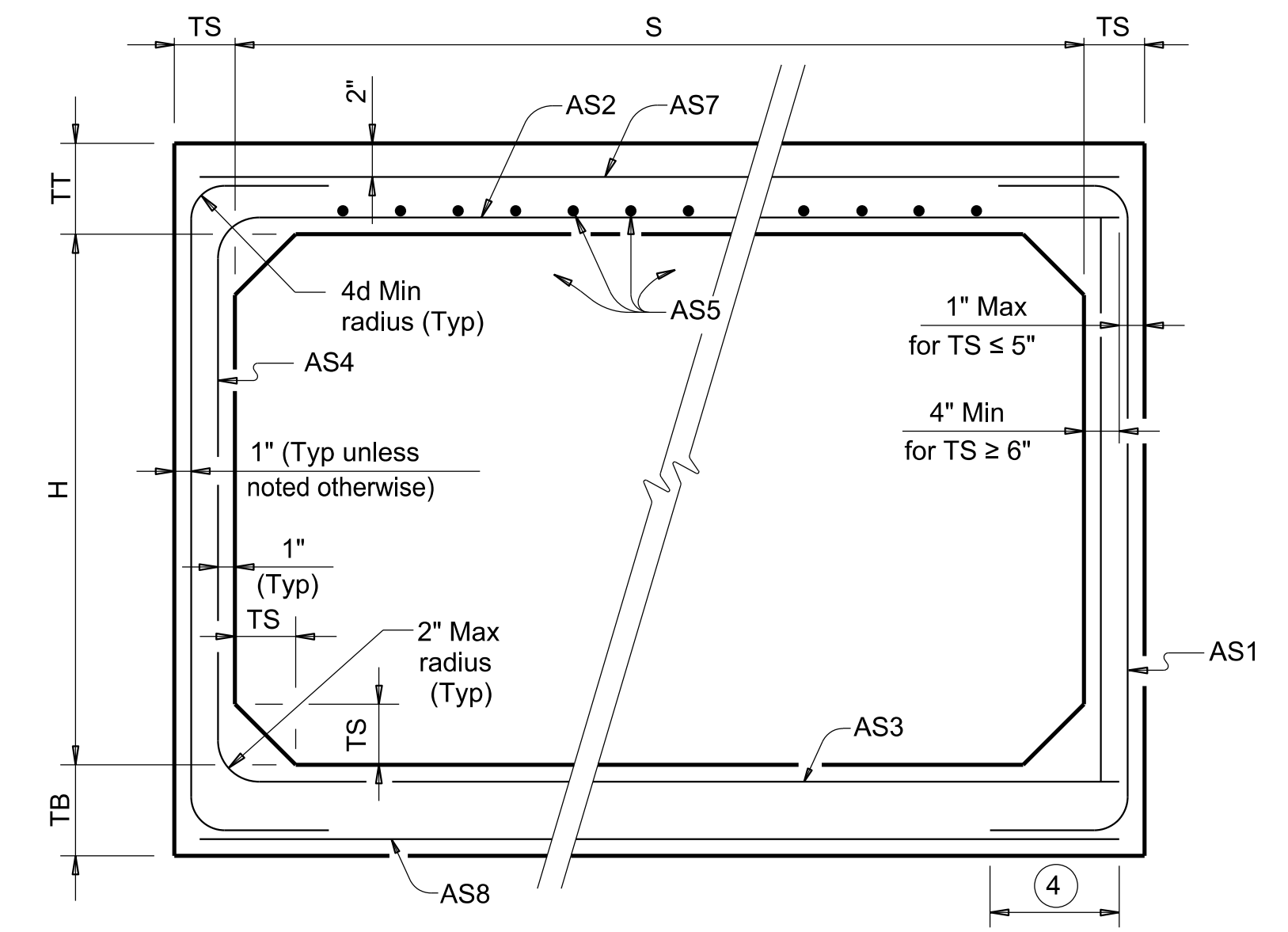
CORNER OPTION "A" **CORNER OPTION "B"**

FILL HEIGHT 2 FT AND GREATER



SECTION A-A

(Showing top and bottom slab joint reinforcement.)



CORNER OPTION "A" **CORNER OPTION "B"**

FILL HEIGHT LESS THAN 2 FT

④ Length is equal to spacing of longitudinal reinforcing plus 2". (10" Min) (Typ)

MATERIAL NOTES:

Provide 0.03 sq. in./ft. minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is used.
Provide Class H concrete (f'c = 5,000 psi).

GENERAL NOTES:

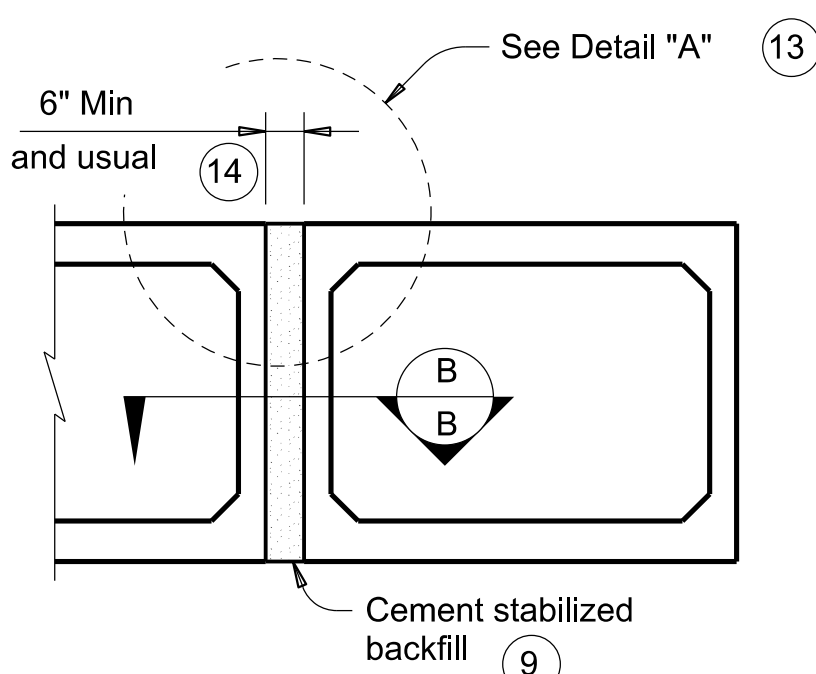
Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for details and notes not shown.
In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrication)".

HL93 LOADING

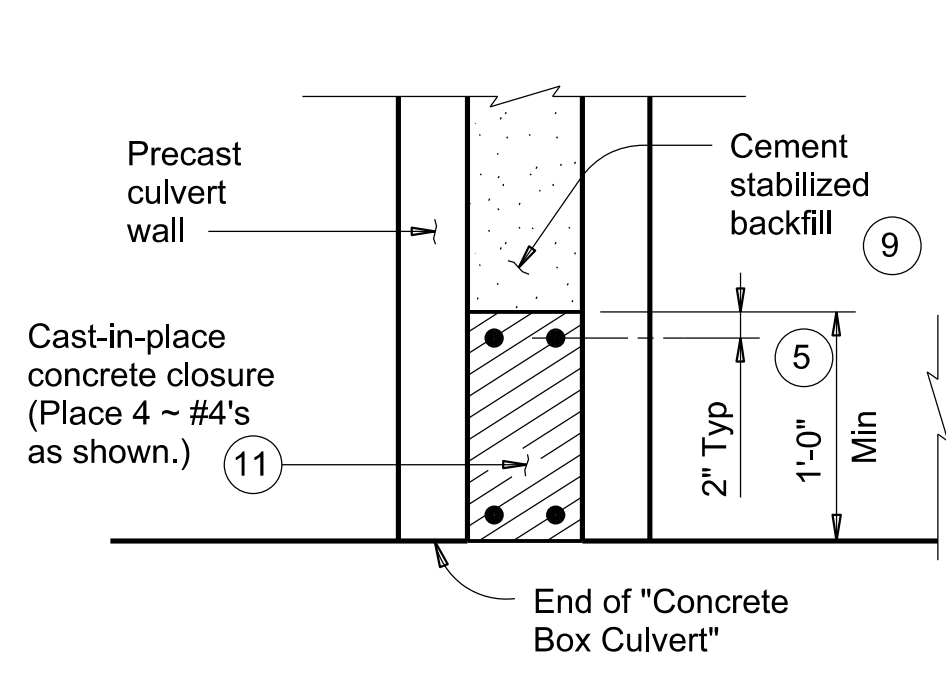
				Bridge Division Standard	
SINGLE BOX CULVERTS PRECAST 5'-0" SPAN					
SCP-5					
FILE:	scp05sls-20.dgn	DN:	TxDOT	CK:	TxDOT
REV:	February 2020	CONT:	SECT:	JOB:	HIGHWAY:
DIST:		COUNTY:		SHEET NO.	
				68	

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

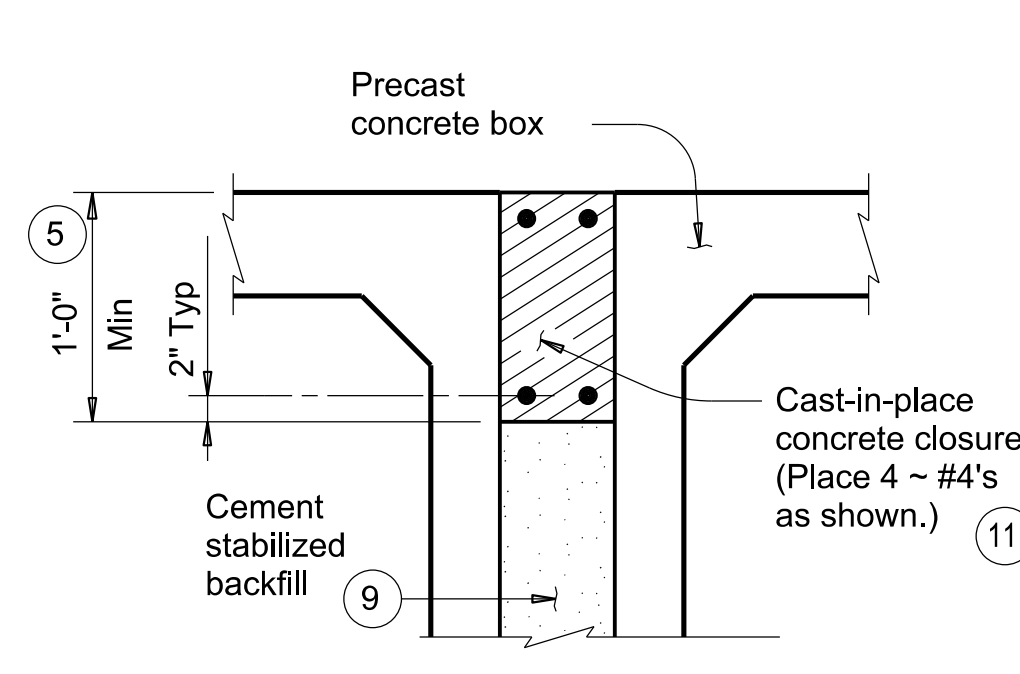
DATE: FILE:



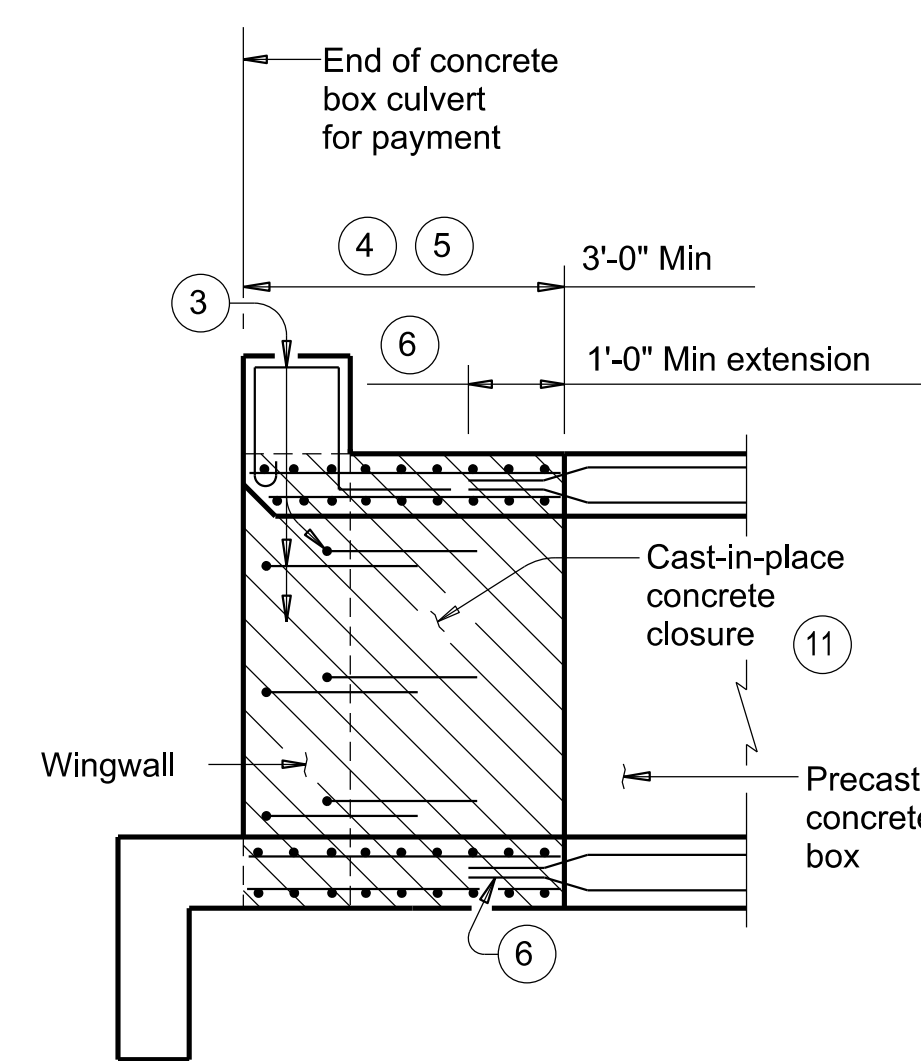
MULTIPLE UNIT PLACEMENT



SECTION B-B

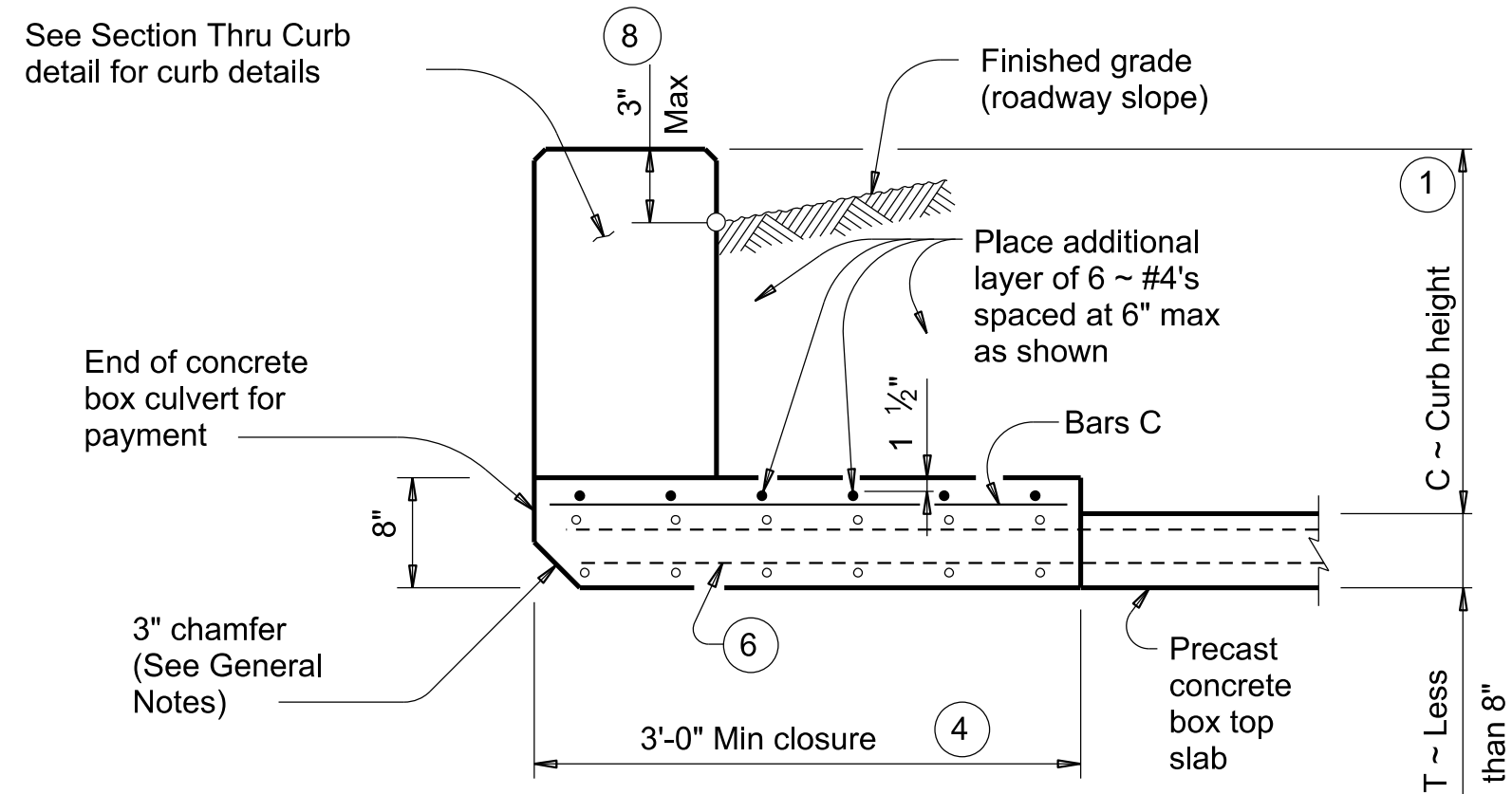


DETAIL "A" (13)

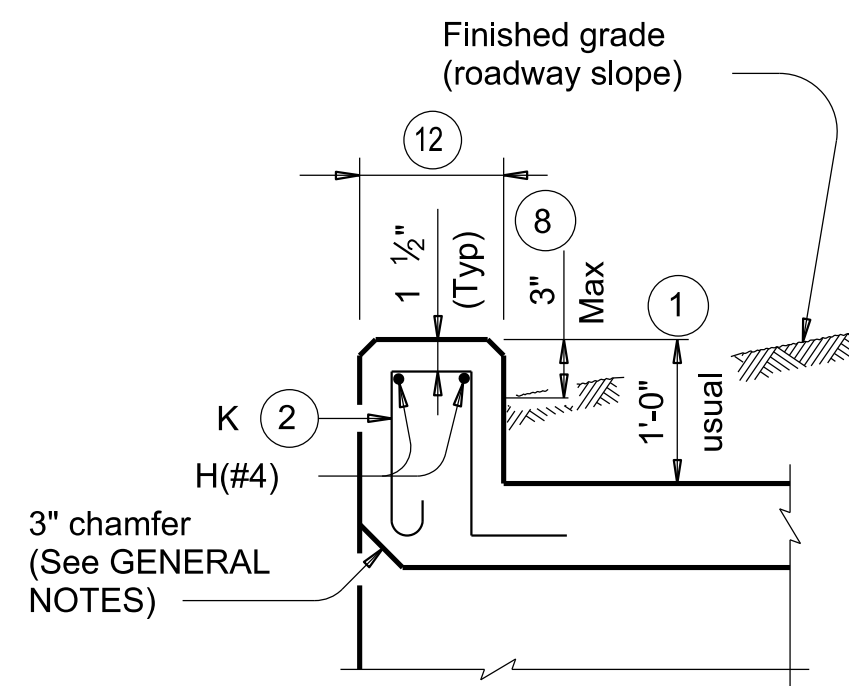


WINGWALL CONNECTION

(Also applies to safety end treatment.)

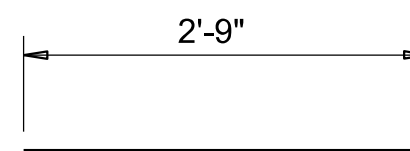


SECTION THRU TOP SLABS LESS THAN 8"

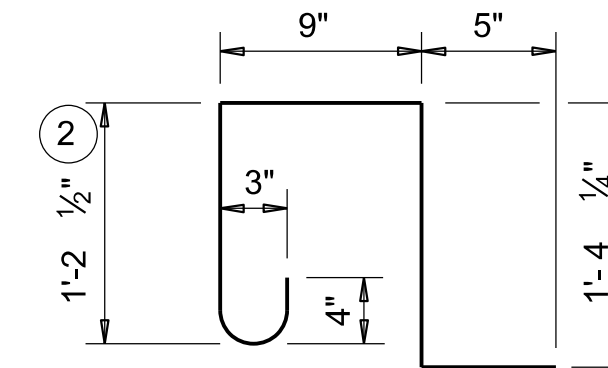


SECTION THRU CURB

QUANTITIES PER FOOT OF CURB (10)	
Reinforcing Steel	4.12 Lb
Concrete	0.037 CY



BARS C (#4)
(Spa = 1'-0" Max)



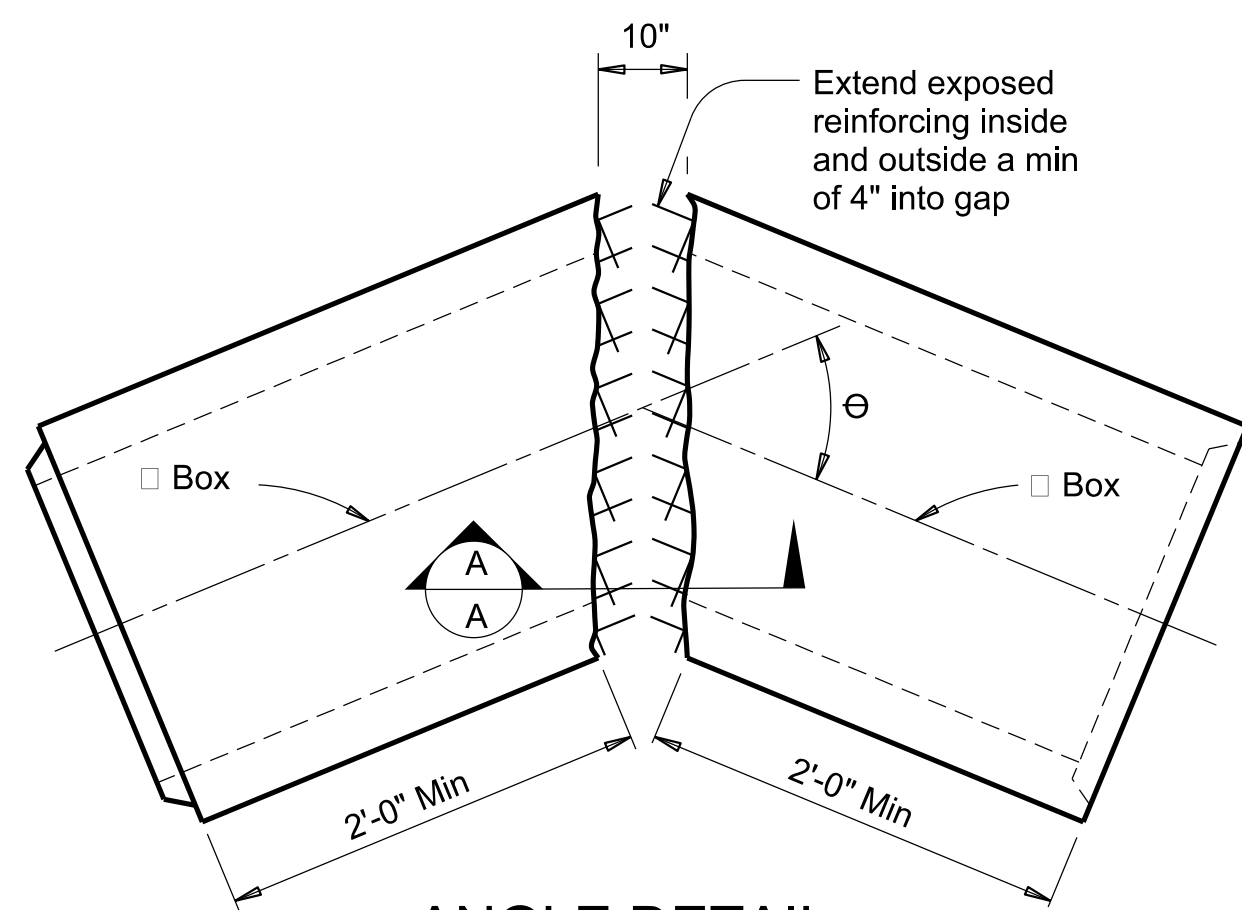
BARS K (#4)
(Spa = 1'-0" Max)
(Length = 4'-2")

- 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail, or curbs taller than 1'-0, refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.
- For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.
- Extend curb, wingwall, or safety end treatment reinforcing into concrete closure. Bend or trim, as necessary, any reinforcing that does not fit into closure area.
- Provide a 3'-0" Min cast-in-place concrete closure. Break back boxes in the field or cast boxes short. Provide bands of reinforcing in the closure that are the same size and spacing as in the precast box section. Provide #4 longitudinal reinforcement spaced at 12 inches Max within the closure. Except where shown otherwise, construct the cast-in-place closure flush with the inside and outside faces of the precast box section.
- For multiple unit placements, adjust the length of the closure for the interior walls as necessary. Provide a 3'-0" Min cast-in-place closure in the top slab, bottom slab, and exterior wall. See Section B-B detail when interior walls are cast full length.
- Extend precast box reinforcing a minimum of 1'-0" into concrete closure (Typ).
- Place bands of reinforcing matching the inside and outside face reinforcing in the gaps of the top and bottom slabs. Place a band matching the outside face reinforcing of the wall in the gaps of the walls (placed in the outside face only). Tack weld the bands to the exposed reinforcing at each point of contact.
- For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, construct curbs no more than 3" above finished grade.
 - For structures with bridge rail, construct curbs flush with finished grade. Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- Cement stabilized backfill between boxes is considered part of the box culvert for payment.
- All curb concrete and reinforcing is considered part of the box culvert for payment.
- Any additional concrete and reinforcing required for the closures will be considered subsidiary to the box culvert for payment.
- 1'-0" typical. 2'-3" when the Box Culvert Rail Mounting Details (RAC) standard sheet is referred to elsewhere in the plans.
- For multiple unit placement with overlay, with 1 to 2 course surface treatment, or with the top slab as the final riding surface, provide wall closure as shown in Detail "A".
- This dimension may be increased with approval of the Engineer to allow the precast boxes to be tunneled or jacked in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box". No payment will be made for any additional material in the gap between adjacent boxes.

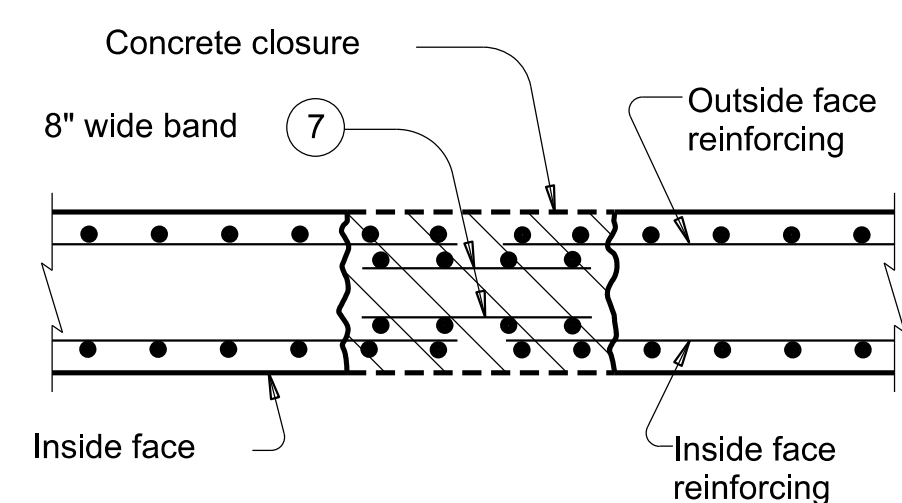
MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide ASTM A1064 welded wire reinforcement.
Provide Class C concrete (f_c = 3,600 psi) for the closures.
Provide cement stabilized backfill meeting the requirements of Item 400, "Excavation and Backfill for Structures."
Any additional concrete required for the closures will be considered subsidiary to the box culvert.

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
Refer to the Single Box Culverts Precast (SCP) standard sheets for details and notes not shown.
Chamfer the bottom edge of the top slab closure 3 inches at culvert closure ends.

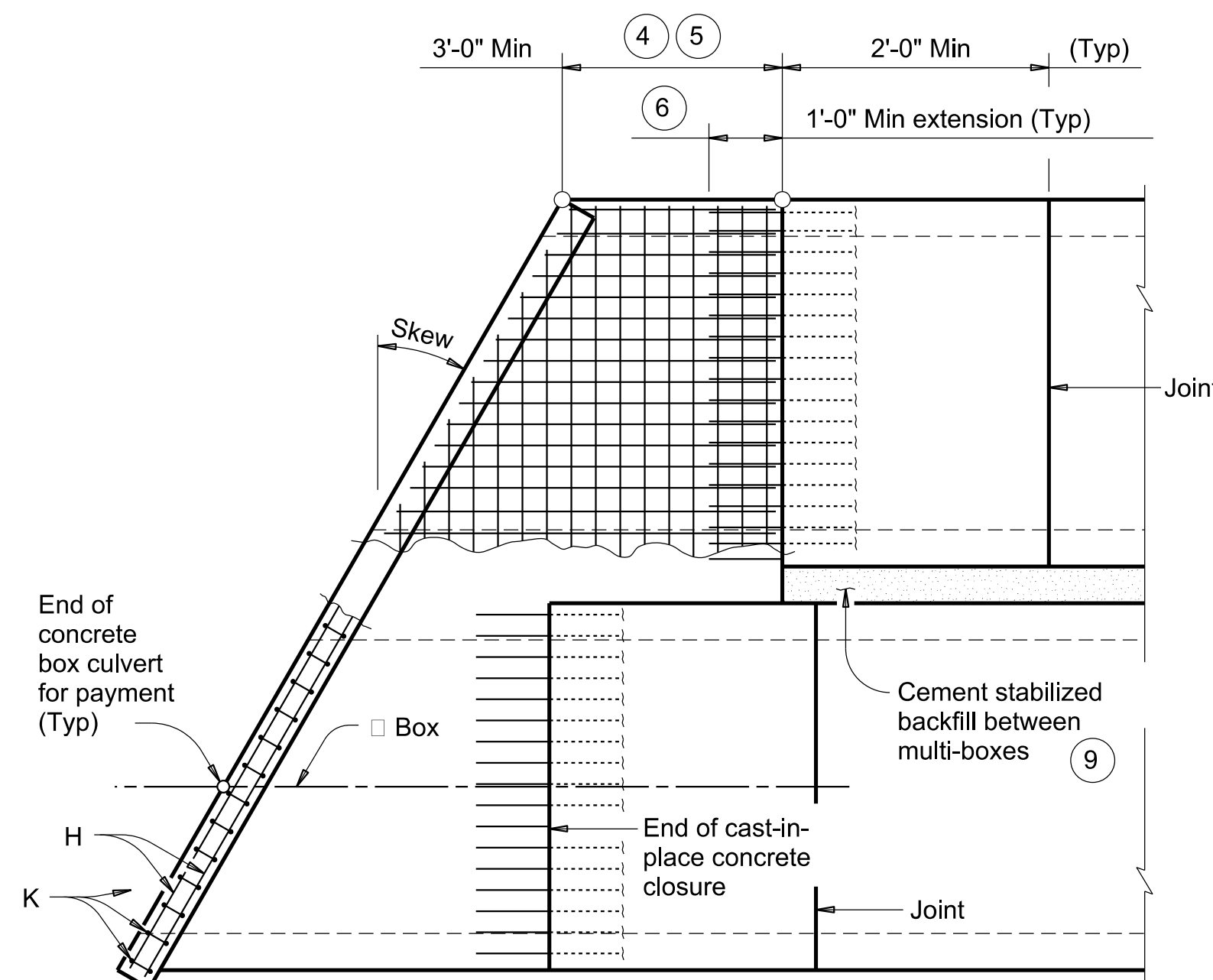
Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bars dimensions are out-to-out of bars.



ANGLE DETAIL



SECTION A-A

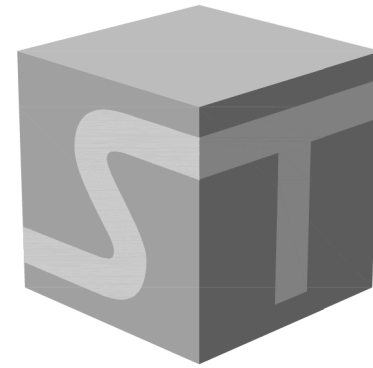


PLAN OF SKEWED ENDS

(Showing multi-box placement.)

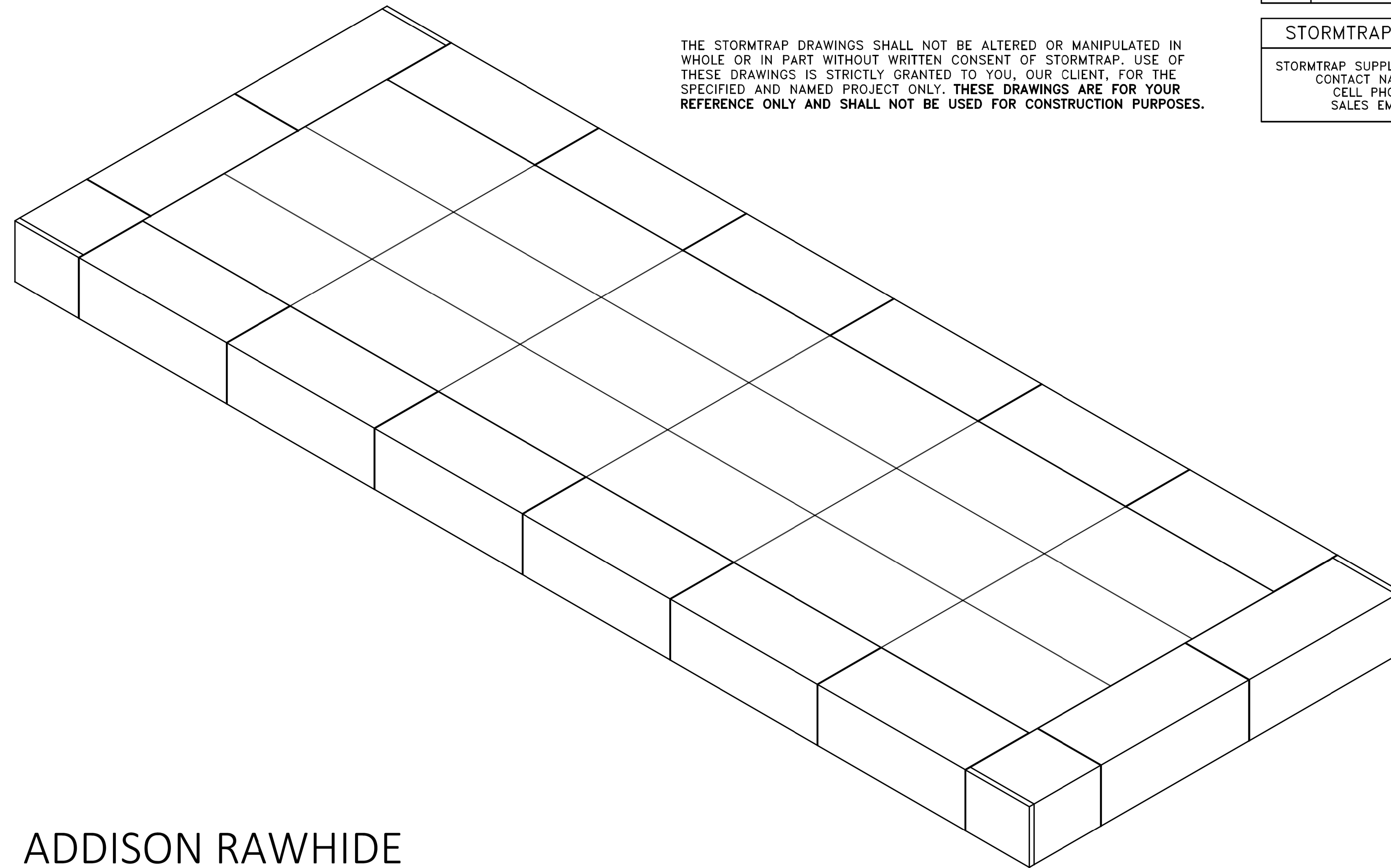
HL93 LOADING

		Bridge Division Standard	
BOX CULVERTS PRECAST MISCELLANEOUS DETAILS			
SCP-MD			
FILE: scpmdstls-20.dgn	DN: GAF	CK: LMW	DW: BWH/TXDOT
REVISIONS	CONT	SECT	JOB
			HIGHWAY
	DIST	COUNTY	SHEET NO.
			69



StormTrap®

MODULAR CONCRETE
STORMWATER MANAGEMENT



THE STORMTRAP DRAWINGS SHALL NOT BE ALTERED OR MANIPULATED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF STORMTRAP. USE OF THESE DRAWINGS IS STRICTLY GRANTED TO YOU, OUR CLIENT, FOR THE SPECIFIED AND NAMED PROJECT ONLY. **THESE DRAWINGS ARE FOR YOUR REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.**

ADDISON RAWHIDE
ADDISON, TX

SHEET INDEX	
PAGE	DESCRIPTION
0.0	COVER SHEET
1.0	SINGLETRAP DESIGN CRITERIA
2.0	SINGLETRAP SYSTEM LAYOUT
2.1	SINGLETRAP FOUNDATION LAYOUT
3.0	SINGLETRAP INSTALLATION SPECIFICATIONS
3.1	SINGLETRAP INSTALLATION SPECIFICATIONS
4.0	SINGLETRAP BACKFILL SPECIFICATIONS
5.0	RECOMMENDED PIPE/ACCESS OPENING SPECIFICATIONS
6.0	SINGLETRAP MODULE TYPES

STORMTRAP CONTACT INFORMATION	
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CONTACT NAME:	AMY HALL
CELL PHONE:	512-567-1317
SALES EMAIL:	AHALL@STORMTRAP.COM

StormTrap®
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 77 SOUTH MAIN STREET
 FORT WORTH, TX
 (254) 702-5474

PROJECT INFORMATION:
 ADDISON RAWHIDE
 ADDISON, TX

CURRENT ISSUE DATE:
 3/21/2022

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SCALE:
 NTS

SHEET TITLE:
 COVER SHEET

SHEET NUMBER:
 1 OF 9



REV. NO.	DATE	DESCRIPTION	BY
3			
2			
1			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

STORMTRAP DETAILS
 ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS
 TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		70

STRUCTURAL DESIGN LOADING CRITERIA

LIVE LOADING: **AASHTO HS-20 HIGHWAY LOADING**
 GROUND WATER TABLE: BELOW INVERT OF SYSTEM
 SOIL BEARING PRESSURE: 3000PSF
 SOIL DENSITY: 120 PCF
 EQUIVALENT UNSATURATED
 LATERAL ACTIVE EARTH PRESSURE: 35 PSF / FT.
 EQUIVALENT SATURATED
 LATERAL ACTIVE EARTH PRESSURE: 80 PSF/FT. (IF WATER TABLE PRESENT)
 APPLICABLE CODES: ASTM C857
 ACI-318
 BACKFILL TYPE: SEE SHEET 4.0 FOR BACKFILL OPTIONS

STORMTRAP SYSTEM INFORMATION

WATER STORAGE PROV: 18597.85 CUBIC FEET
 UNIT HEADROOM: 5'-0" SINGLETRAP

SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.00' MAX. 1.00' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW INVERT OF SYSTEM IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.
5. SYSTEM DESIGN MAY ALLOW FOR INCIDENTAL LEAKAGE AND WILL NOT BE SUBJECT TO LEAKAGE TESTING.

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 1287 WINDHAM PARKWAY
 ROMEVILLE, IL 60446
 P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:

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FORT WORTH, TX
 (254) 702-5474

PROJECT INFORMATION:

ADDISON RAWHIDE

ADDISON, TX

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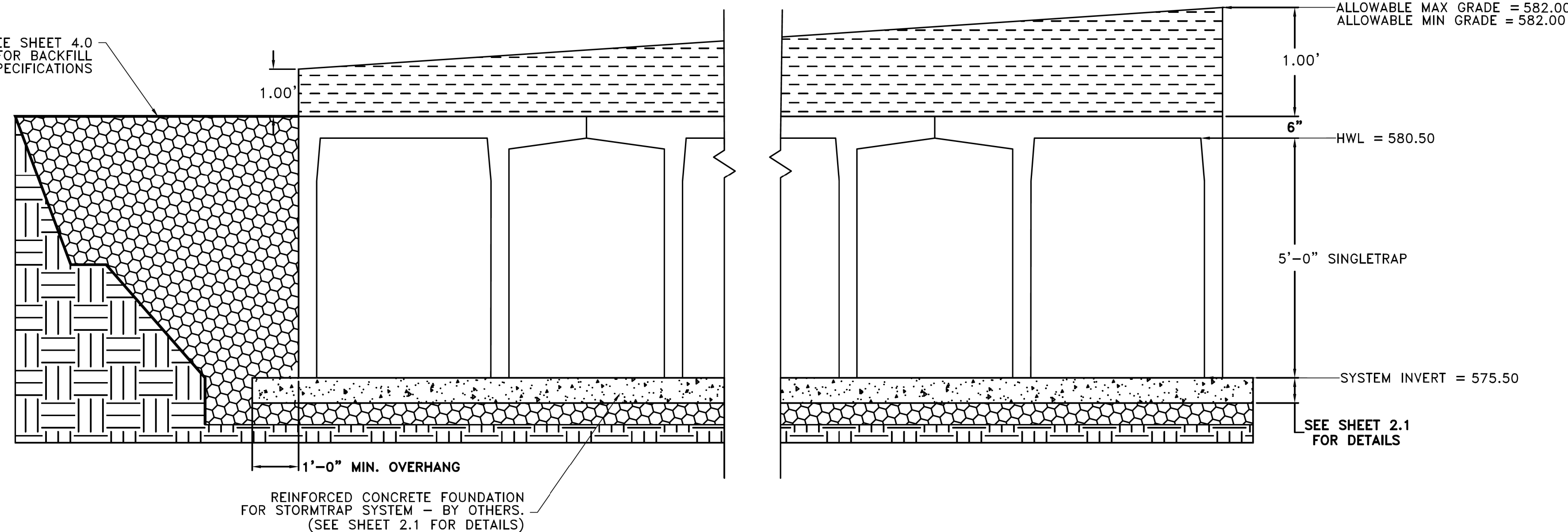
SHEET TITLE:

SINGLETRAP
 DESIGN
 CRITERIA

SHEET NUMBER:

2 OF 9

SEE SHEET 4.0
 FOR BACKFILL
 SPECIFICATIONS



5'-0" SINGLETRAP

REV. NO.	DATE	DESCRIPTION	BY
3			
2			
1			

REV. NO.	DATE	DESCRIPTION	BY
3			
2			
1			



CRiADO 4100 SPRING VALLEY ROAD, SUITE 1001
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 O: 972-392-9092 F: 972-392-9192
Civil Engineering | Land Surveying | Subsurface Utility Engineering | ROW | CE&E
 FIRM NO. F-4373

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TOWN OF ADDISON, TEXAS

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CRiADO	CRiADO	JUNE 2022	AS SHOWN	R14799.00		71

BILL OF MATERIALS			
QTY.	UNIT TYPE	DESCRIPTION	WEIGHT
18	I	5'-0" SINGLETRAP	15493
0	II	5'-0" SINGLETRAP	0
14	III	5'-0" SINGLETRAP	15412
2	IV	5'-0" SINGLETRAP	16618
0	VII	5'-0" SINGLETRAP	0
2	SPIV	5'-0" SINGLETRAP	VARIES
0	T2 PANEL	6" THICK PANEL	0
4	T4 PANEL	6" THICK PANEL	2733
0	T7 PANEL	6" THICK PANEL	0
7	JOINTWRAP	150' PER ROLL	
24	JOINTTAPE	14.5' PER ROLL	
TOTAL PIECES = 36			
TOTAL PANELS = 4			
HEAVIEST PICK WEIGHT = 16,618			

LOADING DISCLAIMER:

STORMTRAP IS NOT DESIGNED TO ACCEPT ANY ADDITIONAL LOADINGS FROM NEARBY STRUCTURES NEXT TO OR OVER THE TOP OF STORMTRAP. IF ADDITIONAL LOADING CONSIDERATIONS ARE REQUIRED FOR STRUCTURAL DESIGN OF STORMTRAP, PLEASE CONTACT STORMTRAP IMMEDIATELY.

TREE LOADING DISCLAIMER:

THE STORMTRAP SYSTEM HAS NOT BEEN DESIGNED TO SUPPORT THE ADDITIONAL WEIGHT OF ANY TREES. FURTHERMORE, THE ROOTS OF THE TREES MUST BE CONTAINED TO PREVENT FUTURE DAMAGE TO THE STORMTRAP SYSTEM. STORMTRAP ACCEPTS NO LIABILITY FOR DAMAGES CAUSED BY TREES OR OTHER VEGETATION PLACE AROUND OR ON TOP OF THE SYSTEM.

DESIGN CRITERIA

ALLOWABLE MAX GRADE = 582.00
 ALLOWABLE MIN GRADE = 582.00
 INSIDE HEIGHT ELEVATION = 580.50
 SYSTEM INVERT = 575.50

NOTES:

- DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
- ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
- SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
- SP - INDICATES A MODULE WITH MODIFICATIONS.
- P - INDICATES A MODULE WITH A PANEL ATTACHMENT.
- CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.

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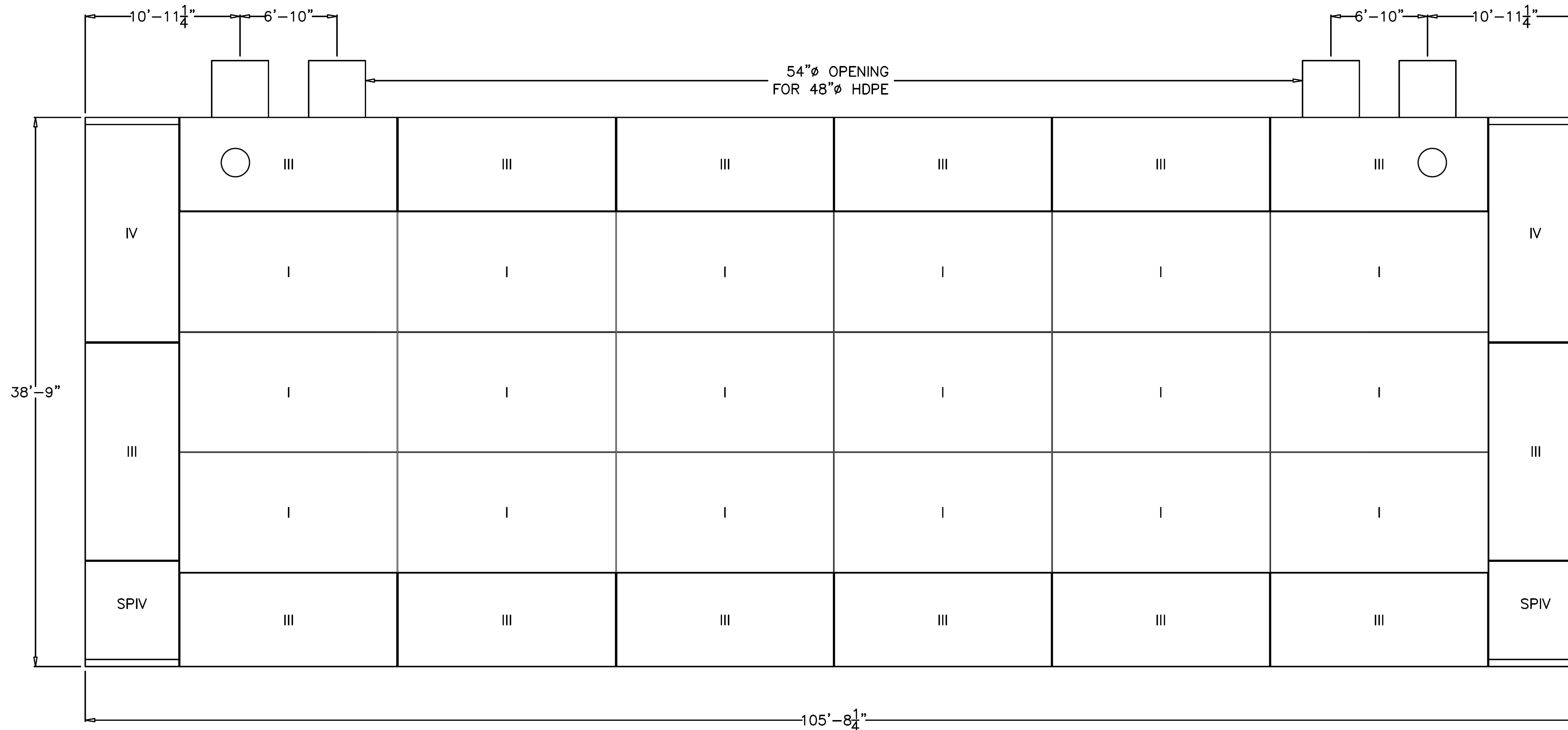
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SHEET TITLE:

SINGLETRAP
 SYSTEM LAYOUT

SHEET NUMBER:

3 OF 9



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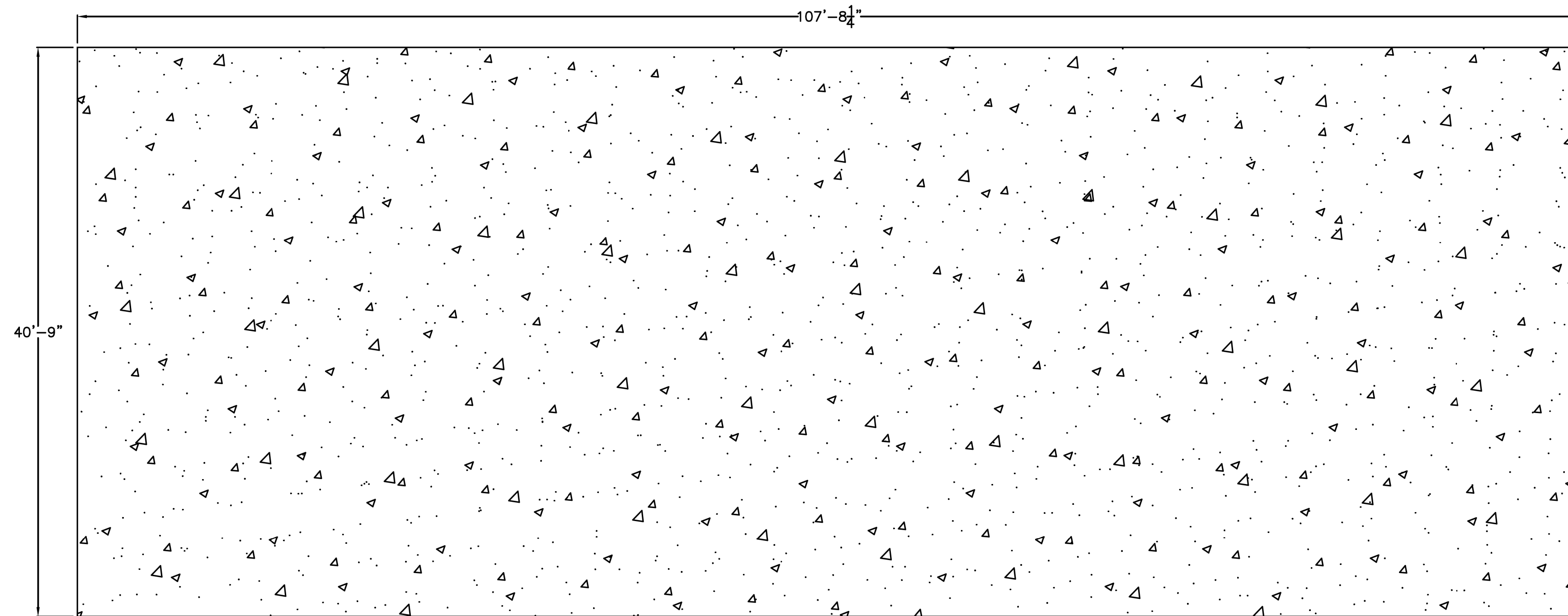
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
 DALLAS, TX 75244
 O: 972-392-9092 F: 972-392-9192
 FIRM NO. F-4373

STORMTRAP DETAILS

ADDISON RAWHIDE BASIN
 DRAINAGE AND SIDEWALK IMPROVEMENTS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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SCALE:

NTS

SHEET TITLE:

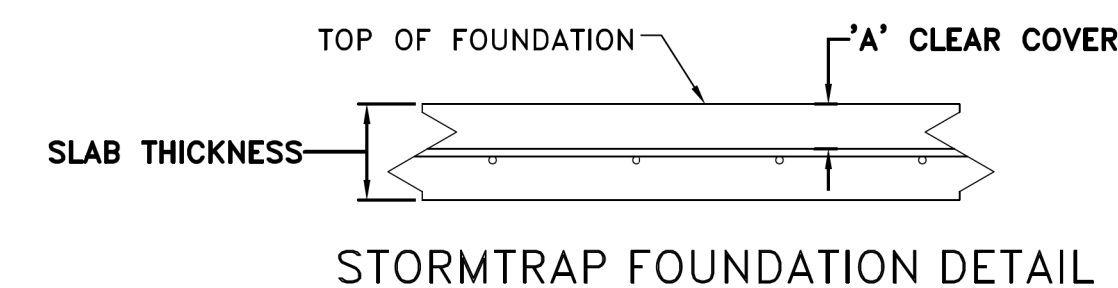
SINGLETRAP
 FOUNDATION
 LAYOUT

SHEET NUMBER:

4 OF 9

CONCRETE FOUNDATION NOTES:

1. CONCRETE FOUNDATION TO BE SUPPLIED AND INSTALLED BY OTHERS.
2. CONCRETE STRENGTH @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX SLUMP.
3. NET ALLOWABLE SOIL PRESSURE AS INDICATED ON SHEET 1.0.
4. SOIL CONDITIONS TO BE VERIFIED ON SITE BY OTHERS.
5. REBAR: ASTM A615 GRADE 60, BLACK BAR.
6. DIMENSION OF FOUNDATION MUST HAVE 1'-0" OVERHANG BEYOND EXTERNAL FACE OF MODULE.
7. DIMENSION OF STORMTRAP SYSTEM ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
8. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
9. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.



HS-20 & HS-25 LOADING - (ACI 318, ST2)				
MAXIMUM SYSTEM COVER	SLAB THICKNESS	CONCRETE STRENGTH	REINFORCEMENT (BOTH DIRECTIONS)	'A' CLEAR COVER
1'-0"	8"	4000 PSI	#4 @ 18" O.C.	3.5"
1'-1" - 2'-0"	8"	4000 PSI	#4 @ 16" O.C.	3.5"
2'-1" - 3'-0"	8"	4000 PSI	#4 @ 12" O.C.	3.5"
3'-1" - 4'-0"	8"	4000 PSI	#4 @ 12" O.C.	3.5"
4'-1" - 5'-0"	8"	4000 PSI	#5 @ 18" O.C.	3.375"
5'-1" - 6'-0"	8"	4000 PSI	#5 @ 16" O.C.	3.375"
6'-1" - 7'-0"	8"	4000 PSI	#5 @ 12" O.C.	3.375"
7'-1" - 8'-0"	9"	4000 PSI	#5 @ 12" O.C.	3.875"
8'-1" - 9'-0"	9"	4000 PSI	#5 @ 12" O.C.	3.875"
9'-1" - 10'-0"	9"	4000 PSI	#5 @ 12" O.C.	3.875"

REV. NO.	DATE	DESCRIPTION	BY

REV. NO.	DATE	DESCRIPTION	BY

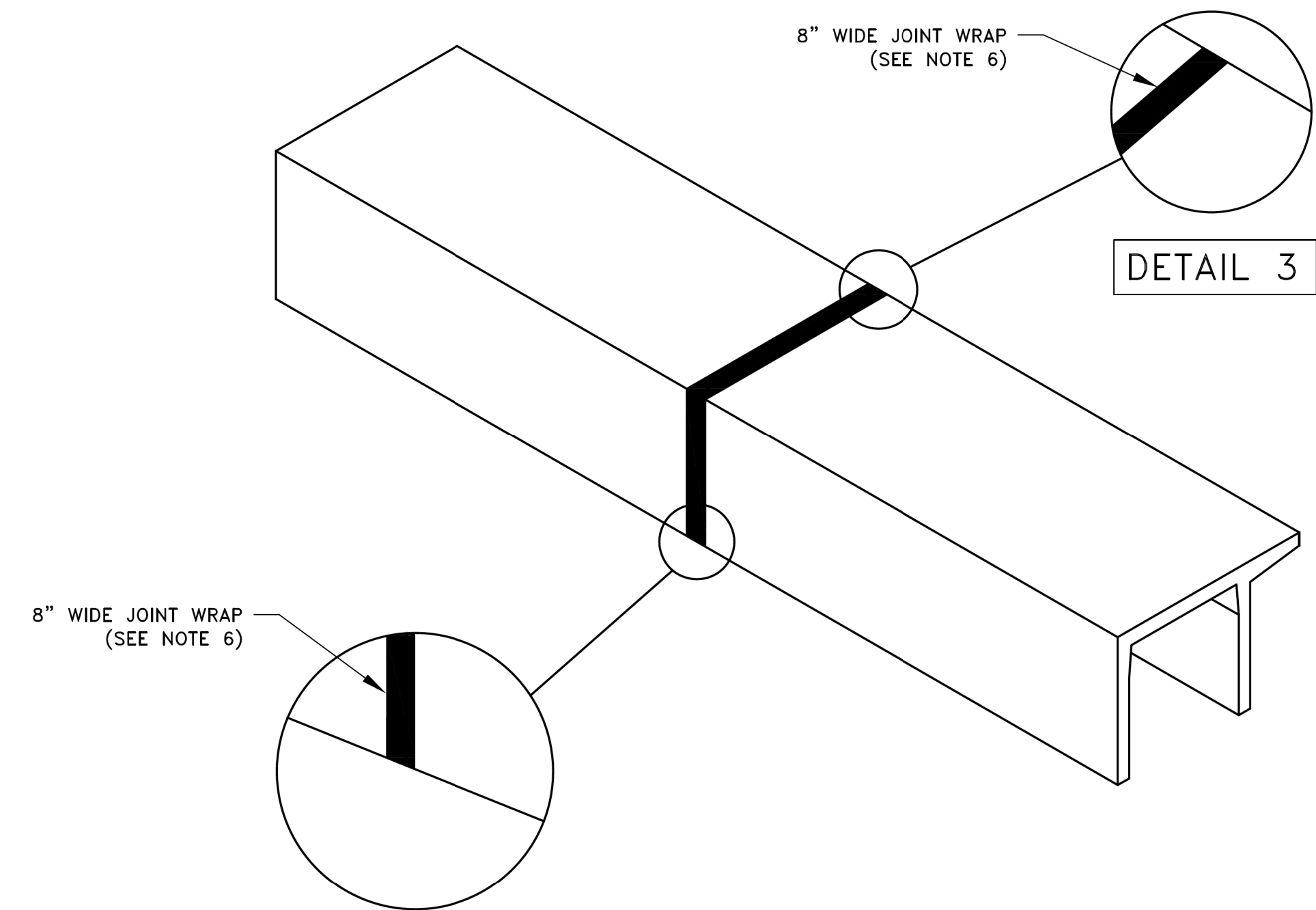


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 O: 972-392-9092 F: 972-392-9192
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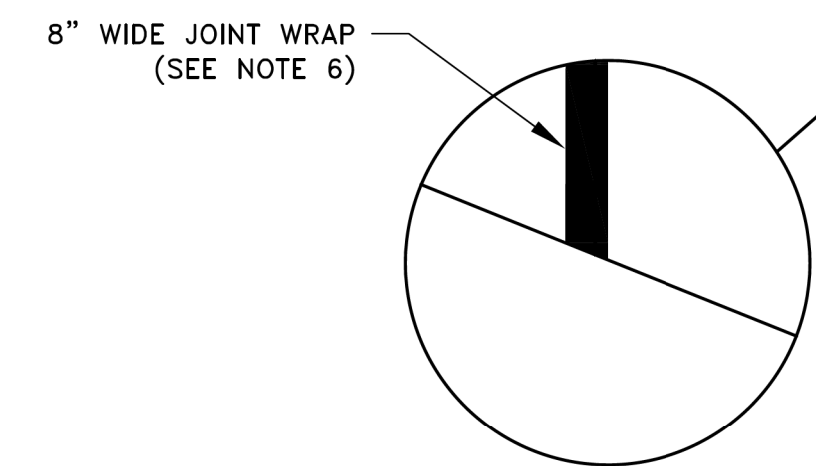
STORMTRAP DETAILS						
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS						
TOWN OF ADDISON, TEXAS						
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STORMTRAP INSTALLATION SPECIFICATIONS

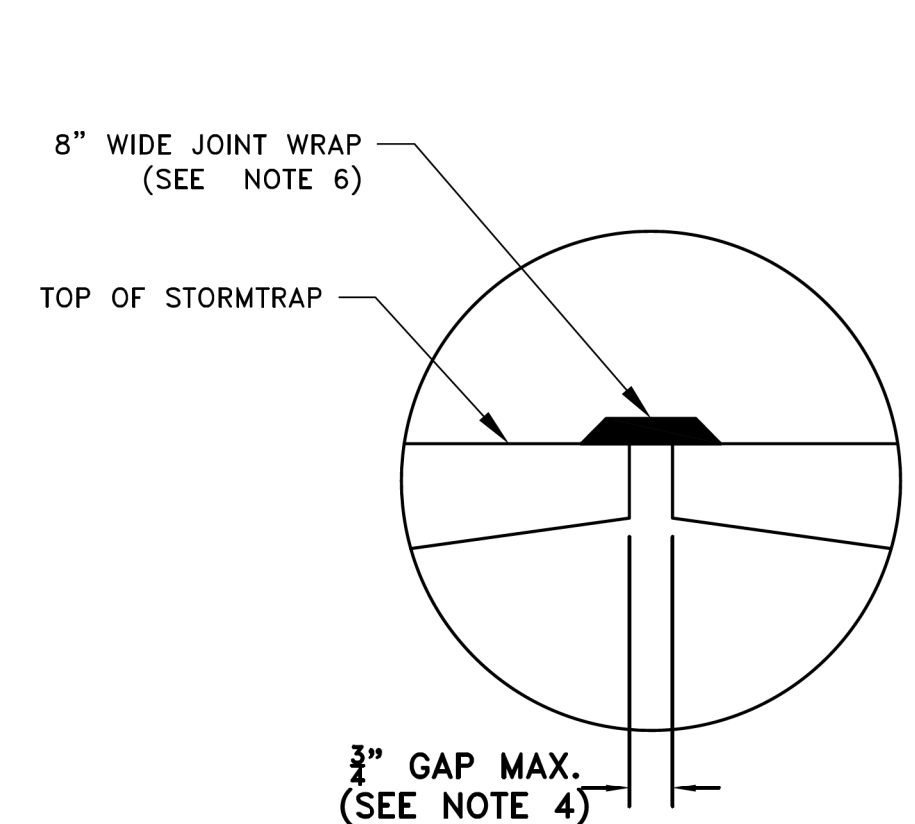
- STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891, STANDARD FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES, THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY:
- IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
- STORMTRAP MODULES SHALL BE PLACED ON A LEVEL CONCRETE FOUNDATION (SEE SHEET 2.1) WITH A 1'-0" OVERHANG ON ALL SIDES THAT SHALL BE POURED IN PLACE BY INSTALLING CONTRACTOR. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS TO ENSURE THAT THE SOIL BEARING PRESSURE MEETS OR EXCEEDS THE STRUCTURAL DESIGN LOADING CRITERIA AS SPECIFIED ON SHEET 1.0.
- THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED $\frac{3}{4}$ " (SEE DETAIL 2). IF THE SPACE EXCEEDS $\frac{3}{4}$ ", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
- THE PERIMETER HORIZONTAL JOINT BETWEEN THE STORMTRAP MODULES AND THE CONCRETE FOUNDATION SHALL BE SEALED TO THE FOUNDATION WITH PRE-FORMED MASTIC JOINT SEALER ACCORDING TO ASTM C891, 8.8 AND 8.12 (SEE DETAIL 1). THE MASTIC JOINT TAPE DOES NOT PROVIDE A WATERTIGHT SEAL.
- ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN, HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 2, 3, & 4). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
 - USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE JOINT WRAP IS TO BE APPLIED.
 - A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
- IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
- IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.



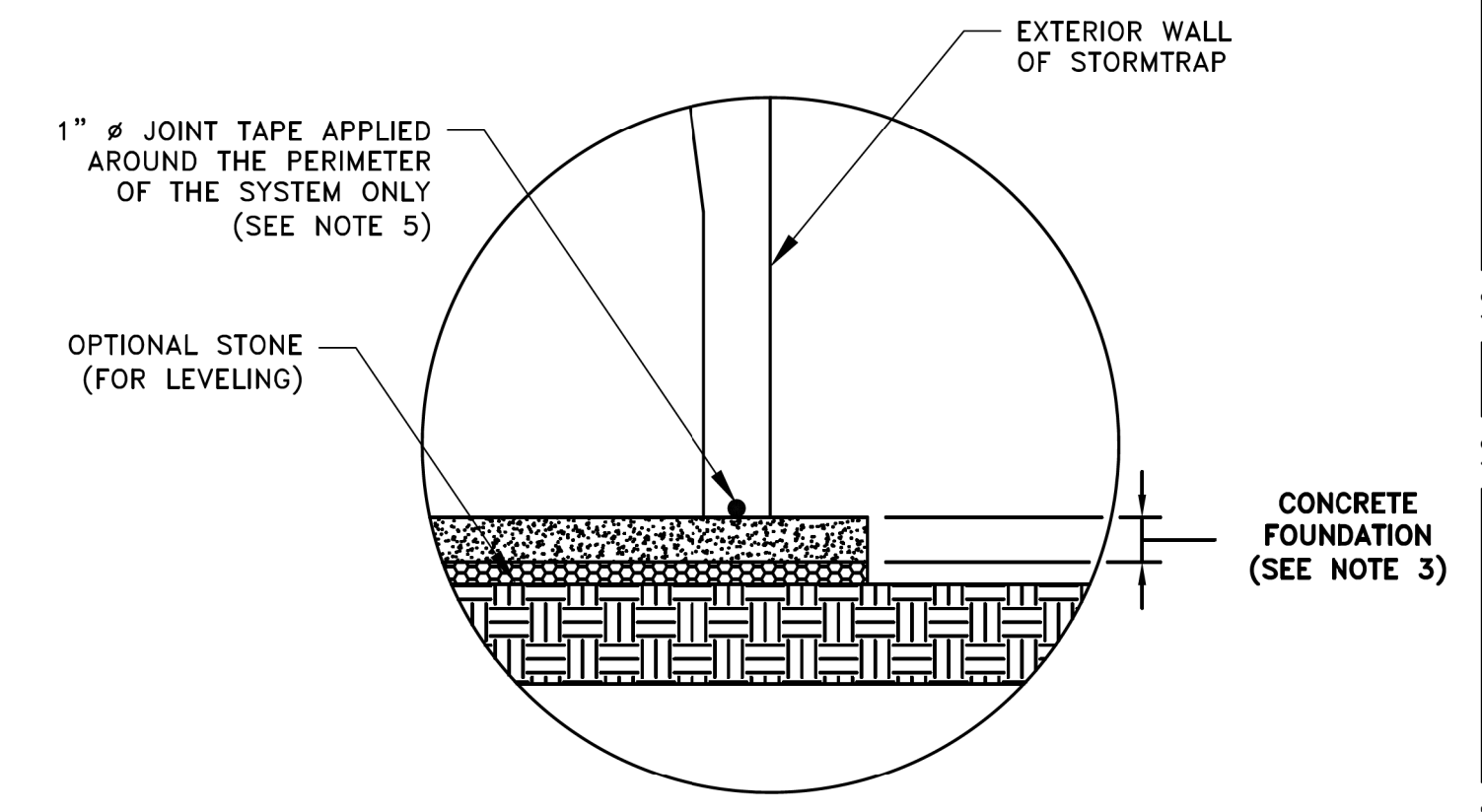
DETAIL 3



DETAIL 4



DETAIL 2



DETAIL 1

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PROJECT INFORMATION:
 ADDISON RAWHIDE
 ADDISON, TX

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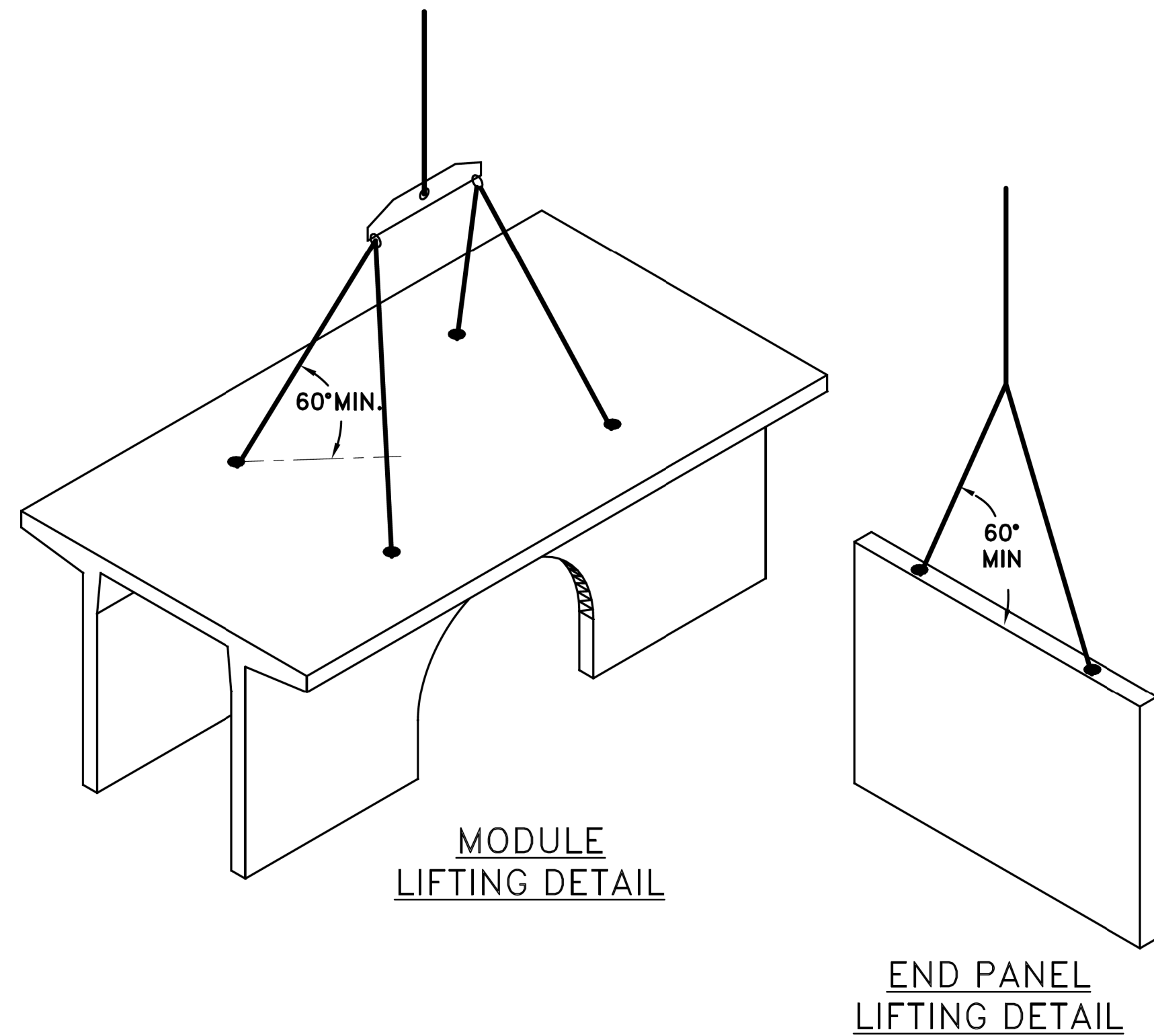
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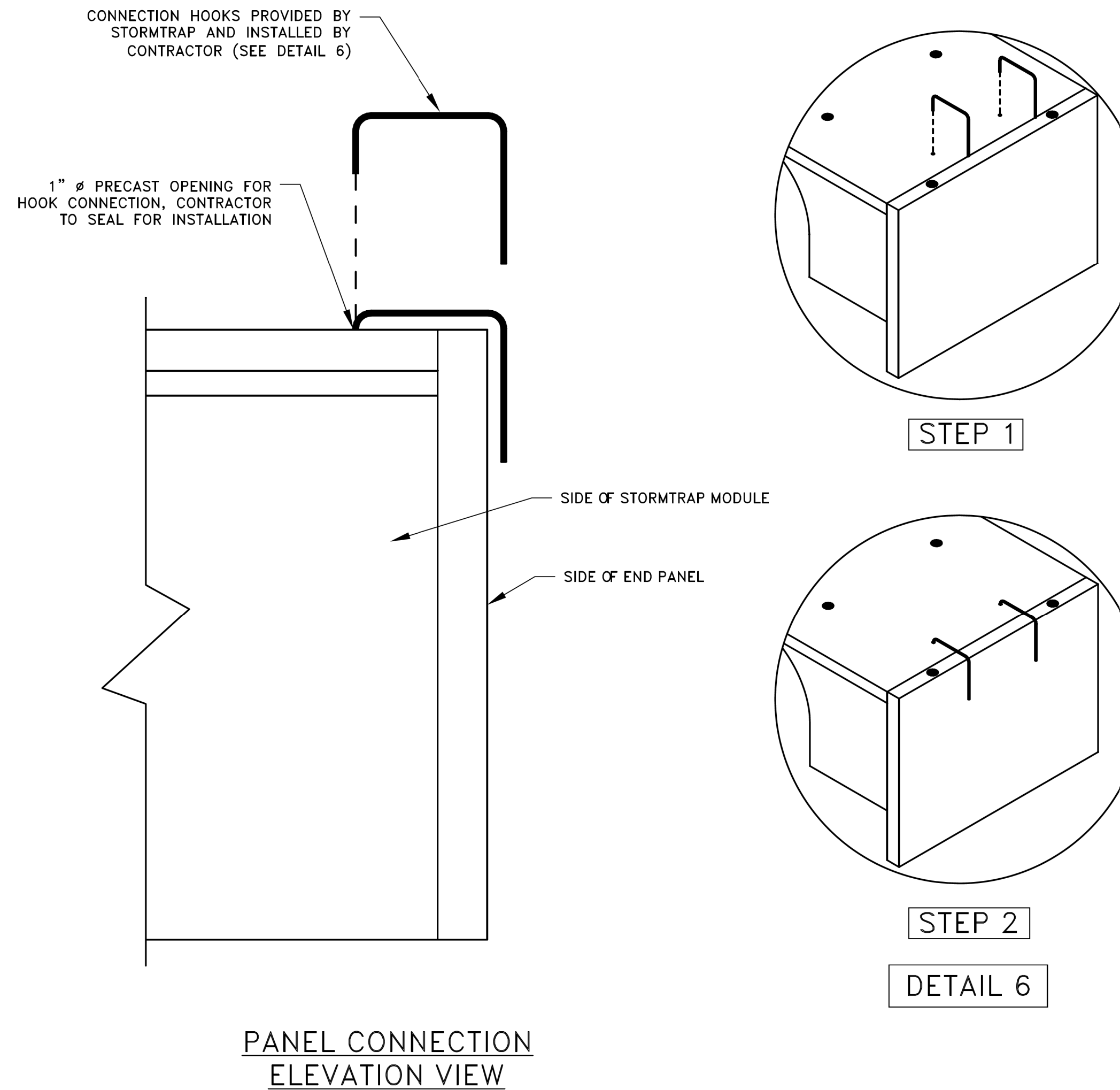
STORMTRAP MODULE LIFTING INSTALLATION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL (4) CHAINS/CABLES ARE SECURED PROPERLY TO THE LIFTING ANCHORS AND IN EQUAL TENSION WHEN LIFTING THE STORMTRAP MODULE (SEE RECOMMENDATIONS 2 & 3).
2. MINIMUM 7'-0" CHAIN/CABLE LENGTH TO BE USED TO LIFT STORMTRAP MODULES (SUPPLIED BY CONTRACTOR).
3. CONTRACTOR TO ENSURE MINIMUM LIFTING ANGLE IS 60° FROM TOP SURFACE OF STORMTRAP MODULE. SEE DETAIL.
4. IT IS UNDERSTOOD AND AGREED THAT AT ALL TIMES DURING WHICH HOISTING AND RIGGING EQUIPMENT IS BEING SUPPLIED TO THE PURCHASER, OPERATOR OF SUCH EQUIPMENT SHALL BE IN CHARGE OF HIS ENTIRE EQUIPMENT AND SHALL AT ALL TIMES BE THE JUDGE OF THE SAFETY AND PROPERTY OF ANY SUGGESTION TO HIM FROM THE SELLER, ITS AGENTS OR EMPLOYEES. PURCHASER AGREES TO SAVE, INDEMNIFY AND HOLD HARMLESS SELLER FROM ALL LOSS, CLAIMS, DEMANDS OR CAUSES OF ACTION, WHICH MAY ARISE FROM THE EXISTENCE OR OPERATION OF SAID EQUIPMENT.



END PANEL ERECTION/INSTALLATION NOTES

1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



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ZONE CHART		
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1	FOUNDATION AGGREGATE	#5 (3/4") STONE AGGREGATE (SEE NOTE 4 FOR DESCRIPTION)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PCF

FILL DEPTH	TRACK WIDTH	MAX VEHICLE WEIGHT (KIPS)	MAX GROUND PRESSURE
12"	12"	51.8	1690 psf
	18"	56.1	1219 psf
	24"	68.1	1111 psf
	30"	76.7	1000 psf
	36"	85.0	924 psf

NOTE:
TRACK LENGTH NOT TO EXCEED 15'-4".
ONLY TWO TRACKS PER VEHICLE.

STORMTRAP ZONE INSTALLATION SPECIFICATIONS/PROCEDURES

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/STONE MATERIAL IS WELL SEATED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS).
2. DURING PLACEMENT OF MATERIAL OVERTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USED OVERTOP THAT EXCEEDS THE DESIGN LIMITATIONS OF THE SYSTEM. WHEN PLACEMENT OF MATERIAL OVERTOP, MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.
3. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED AT A MINIMUM OF 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20 LOADING CRITERIA TRAVEL OVERTOP THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY OVERTOP THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVER, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. IN SOME CASES, IN ORDER TO ACHIEVE REQUIRED COMPACTION, HAND COMPACTION MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOTTED DESIGN LOADING. SEE CHART FOR TRACKED VEHICLE WIDTH AND ALLOWABLE MAXIMUM PRESSURE PER TRACK.
4. STONE AGGREGATE FOUNDATION IN ZONE 1 IS RECOMMENDED FOR LEVELING PURPOSES ONLY (OPTIONAL).

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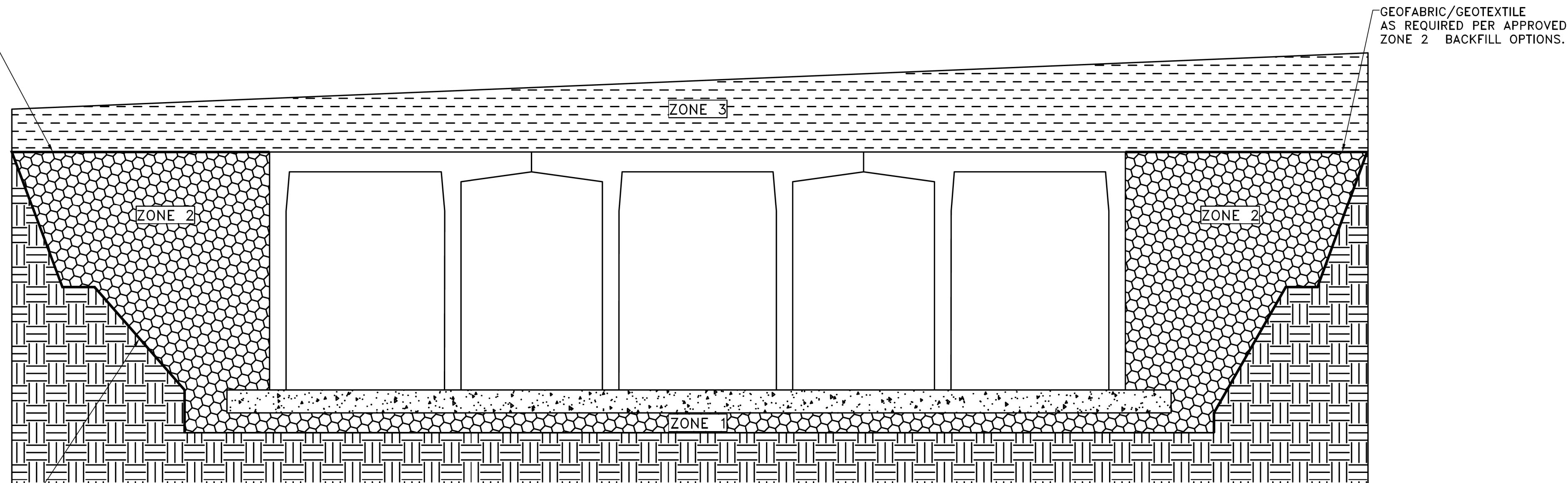
SINGLETRAP
BACKFILL
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APPROVED ZONE 2 BACKFILL OPTIONS	
OPTION	REMARKS
3/4" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL (ASTM SIZE #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 40% PASSING #40 SIEVE AND LESS THAN 5% PASSING #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE SAND BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 12% PASSING THE #200 SIEVE (ASTM SIZE #467). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

GEOFABRIC/GEOTEXTILE AS REQUIRED PER APPROVED ZONE 2 BACKFILL OPTIONS.



GEOFABRIC/GEOTEXTILE AS REQUIRED PER APPROVED ZONE 2 BACKFILL OPTIONS.

STEPPED OR SERRATED AND APPLICABLE OSHA REQUIREMENTS (SEE INSTALLATION SPECIFICATIONS)

BACKFILL DETAIL

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**RECOMMENDED
ACCESS OPENING SPECIFICATION**

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 3'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 1'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS NOTED OTHERWISE. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE LEG UNLESS OTHERWISE SPECIFIED.
2. PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PS3-PFC OR APPROVED EQUAL (SEE STEP DETAIL) ARE PROVIDED INSIDE ANY MODULE WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL ENSUING STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)

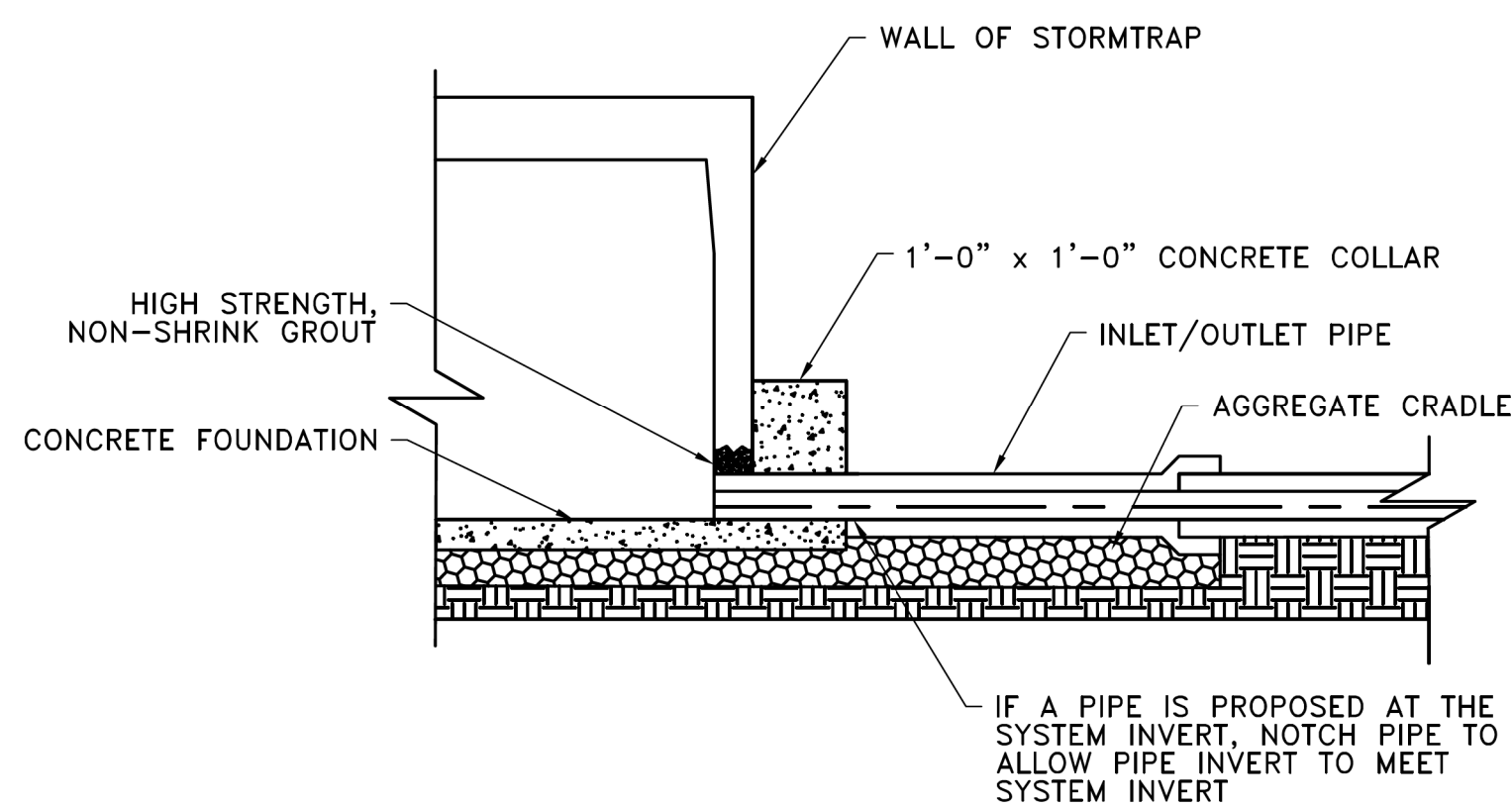
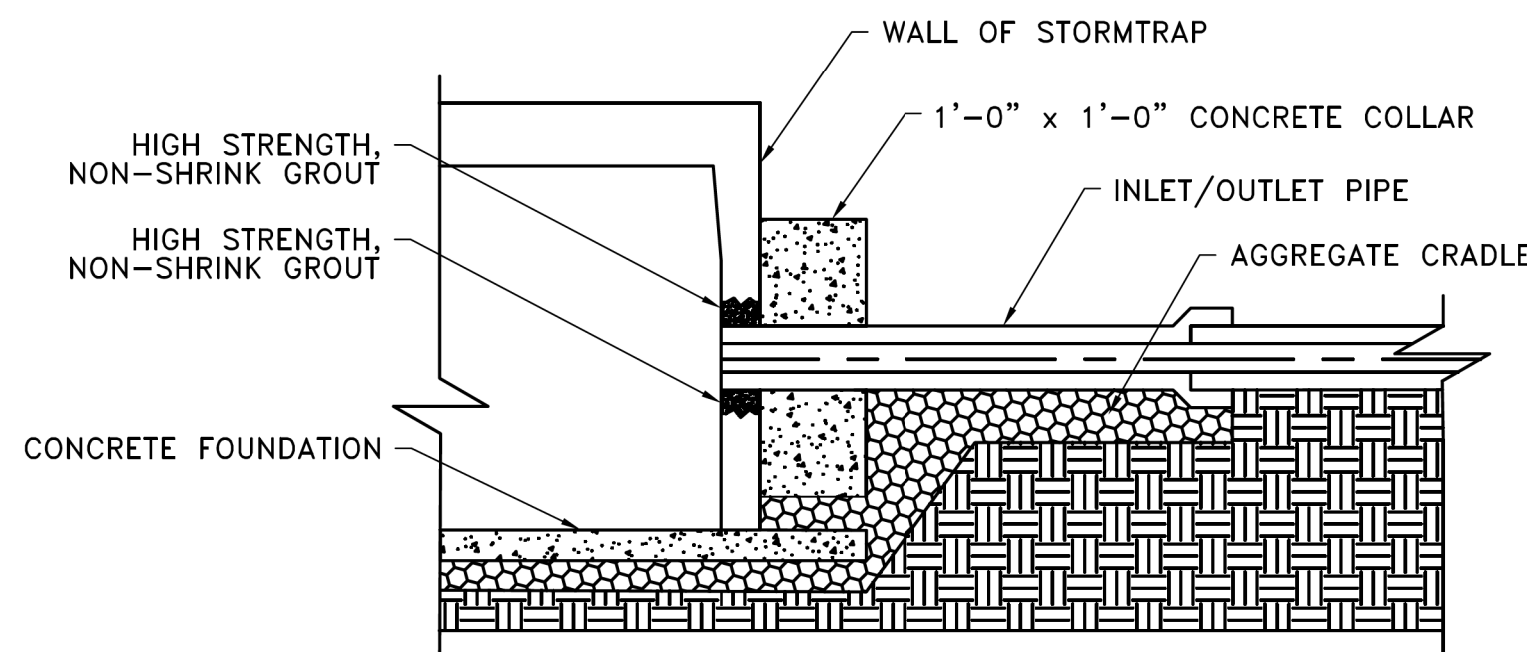
**RECOMMENDED
PIPE OPENING SPECIFICATION**

1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
2. MAXIMUM OPENING SIZE TO BE DETERMINED BY THE MODULE HEIGHT. PREFERRED OPENING SIZE Ø 36" OR LESS. ANY OPENING NEEDED THAT DOES NOT FIT THIS CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF STORMTRAP FOR REVIEW.
3. CONNECTING PIPES SHALL BE INSTALLED WITH A 1'-0" CONCRETE COLLAR, AND AN AGGREGATE CRADLE FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH, NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED.
4. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

**RECOMMENDED PIPE
INSTALLATION INSTRUCTIONS**

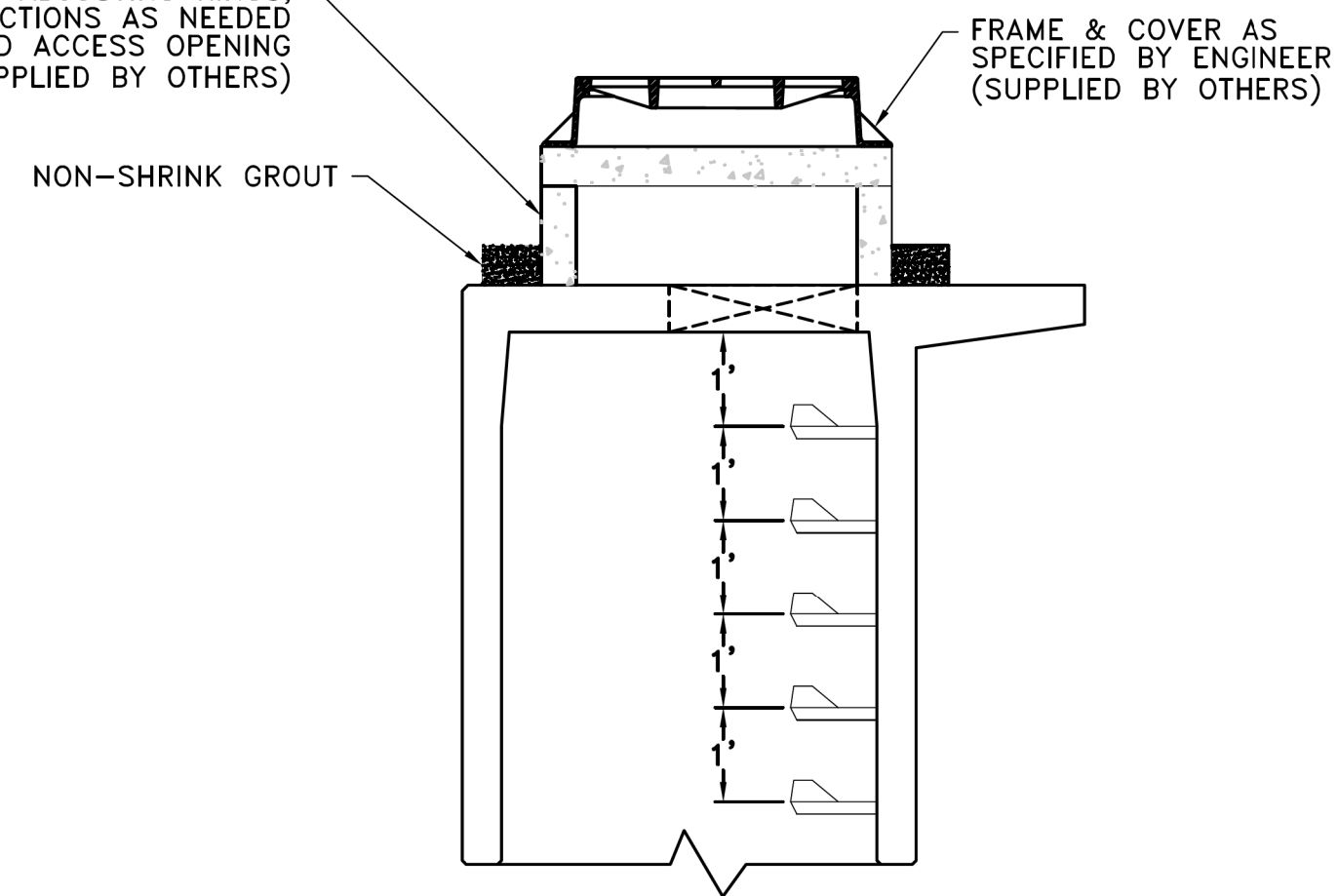
1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE/REQUIREMENTS.

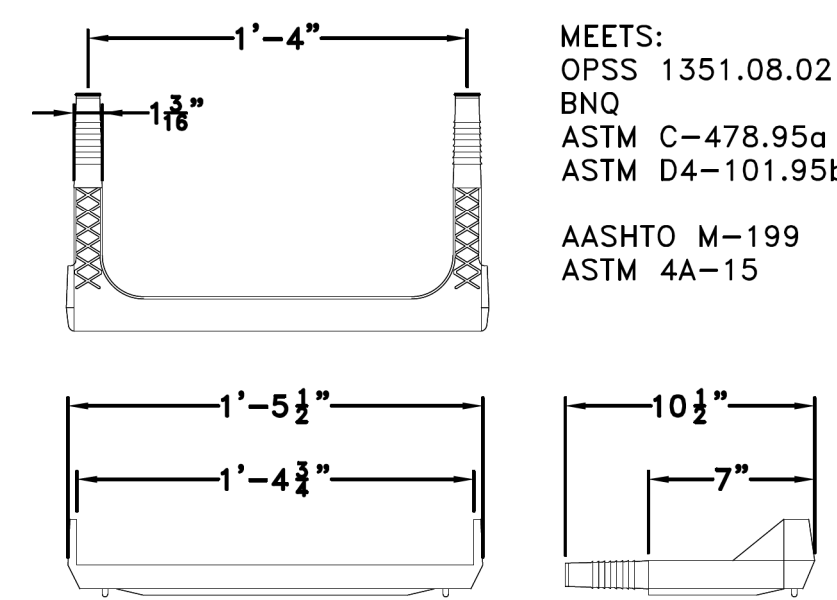


PIPE CONNECTION DETAIL

PRECAST CONCRETE ADJUSTING RINGS, BARREL OR CONE SECTIONS AS NEEDED SEE RECOMMENDED ACCESS OPENING SPECIFICATION NOTE 6. (SUPPLIED BY OTHERS)



RISER/STAIR DETAIL



STEP DETAIL

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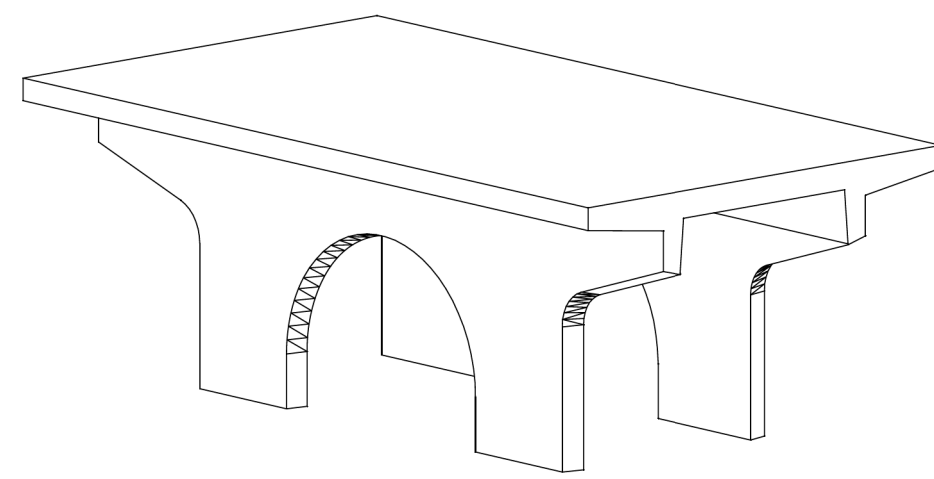


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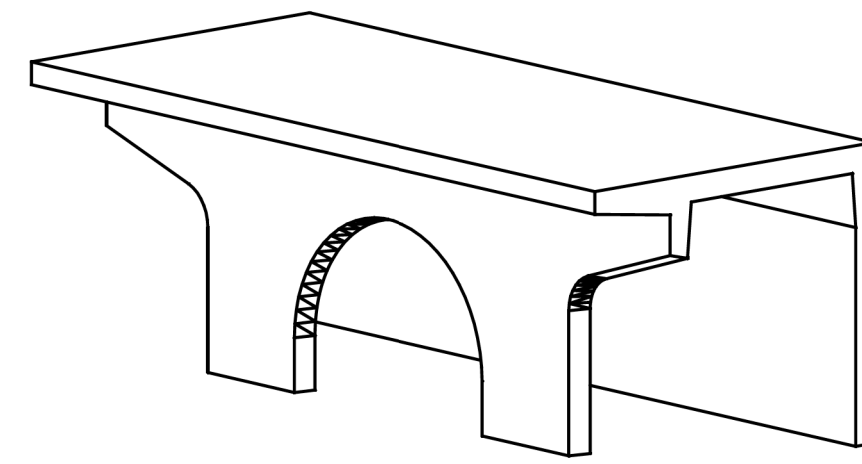
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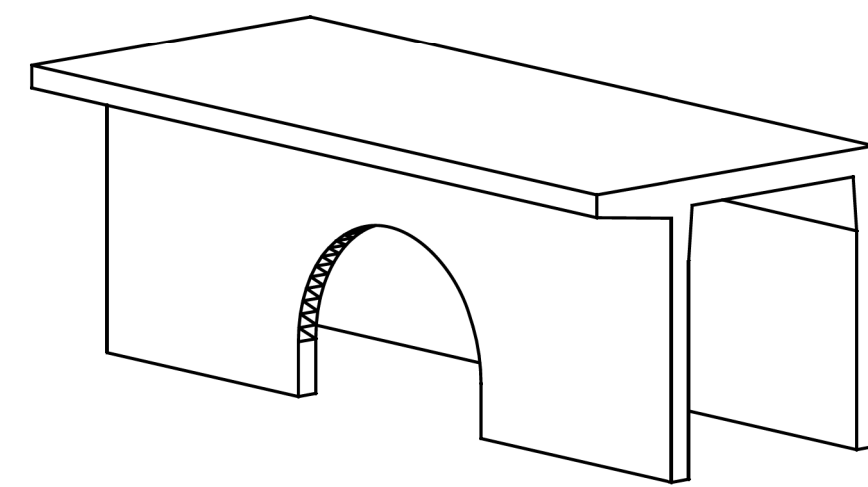
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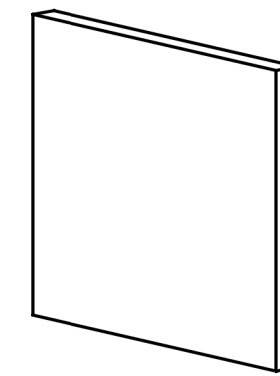
TYPE I



TYPE III



TYPE IV



TYPE IV
END PANEL

NOTES:

1. OPENING LOCATIONS AND SHAPES MAY VARY.
2. SP - INDICATES A MODULE WITH MODIFICATIONS.
3. P - INDICATES A MODULE WITH A PANEL ATTACHMENT.
4. POCKET WINDOW OPENINGS ARE OPTIONAL.

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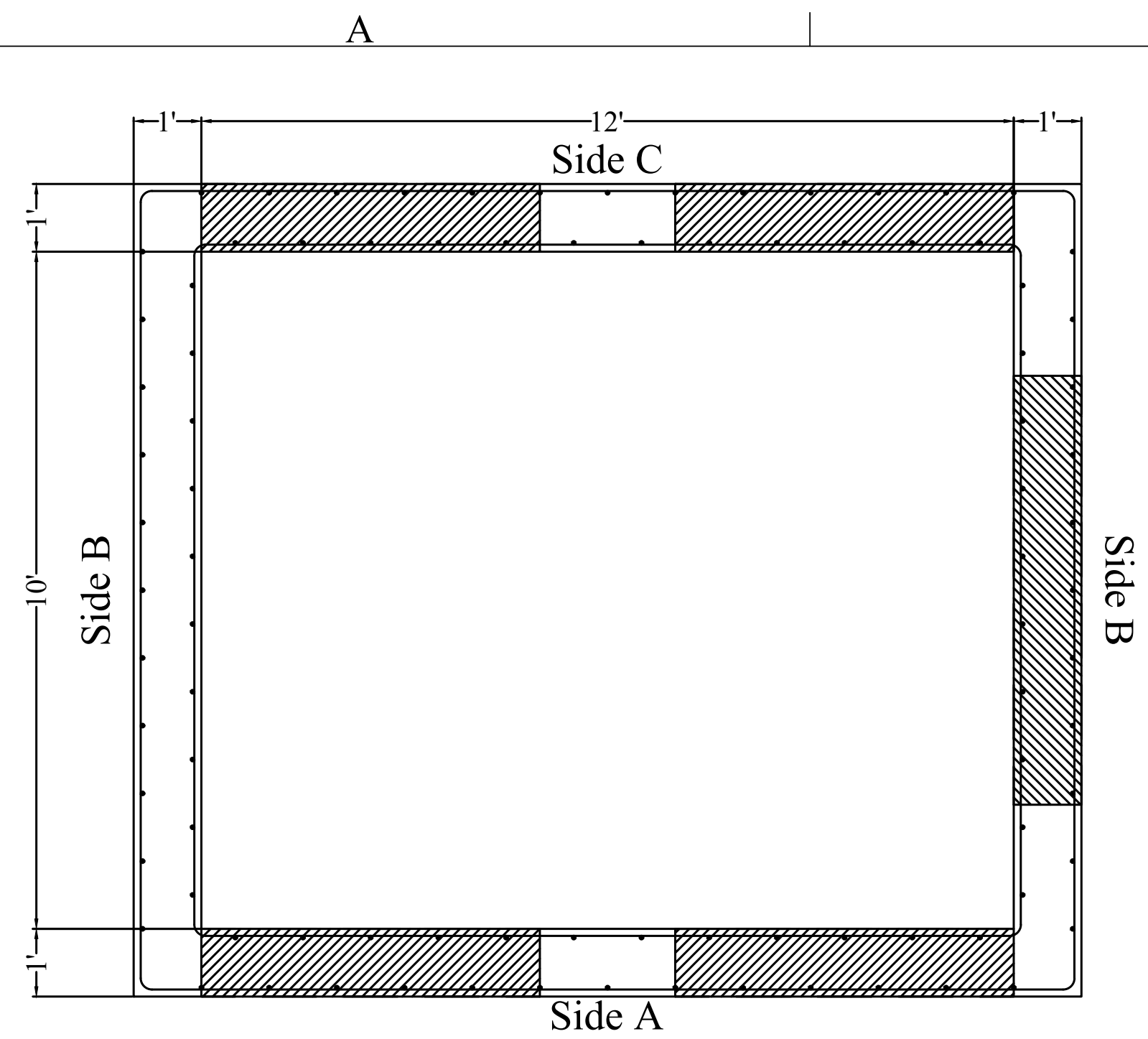
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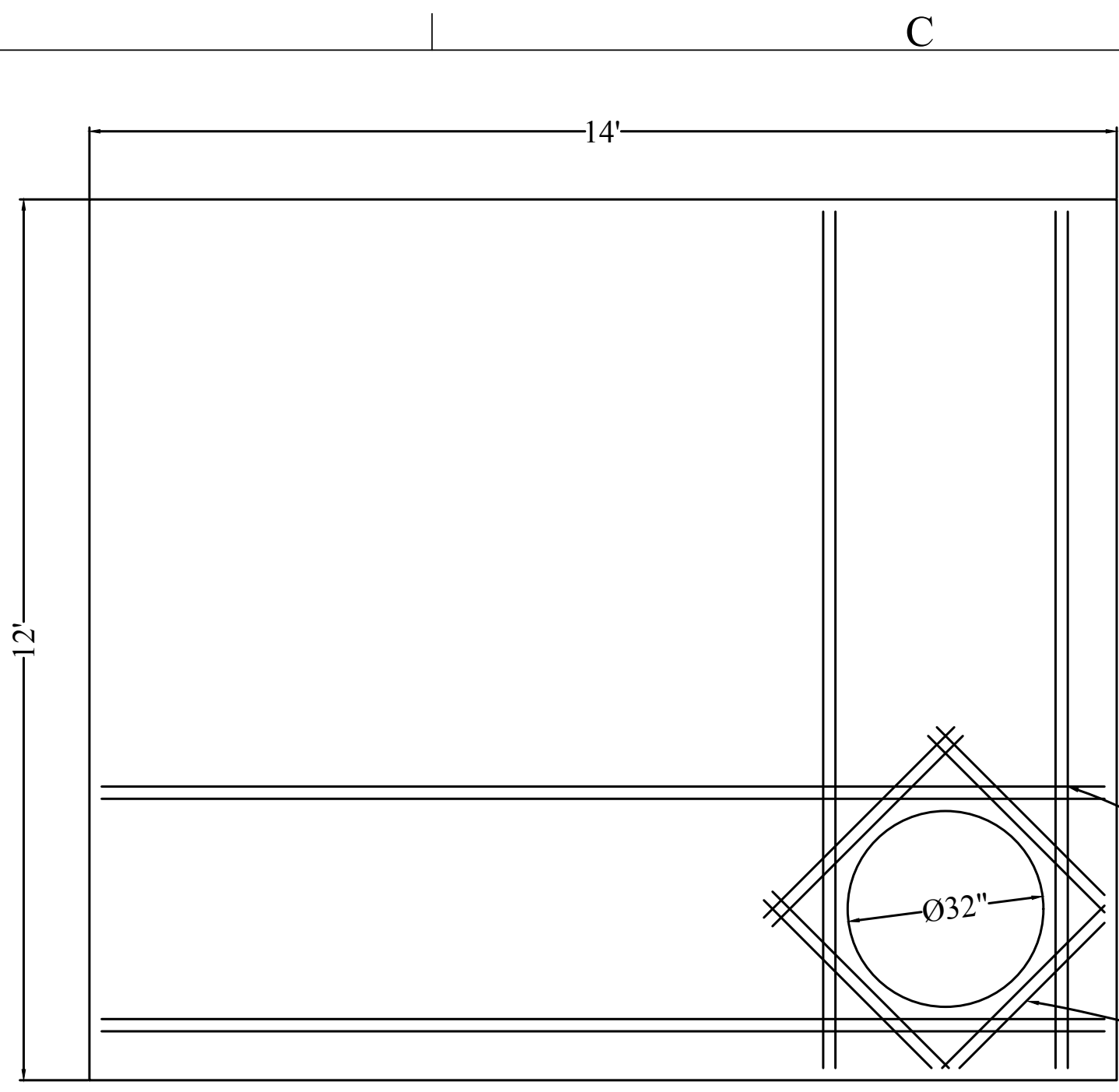
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DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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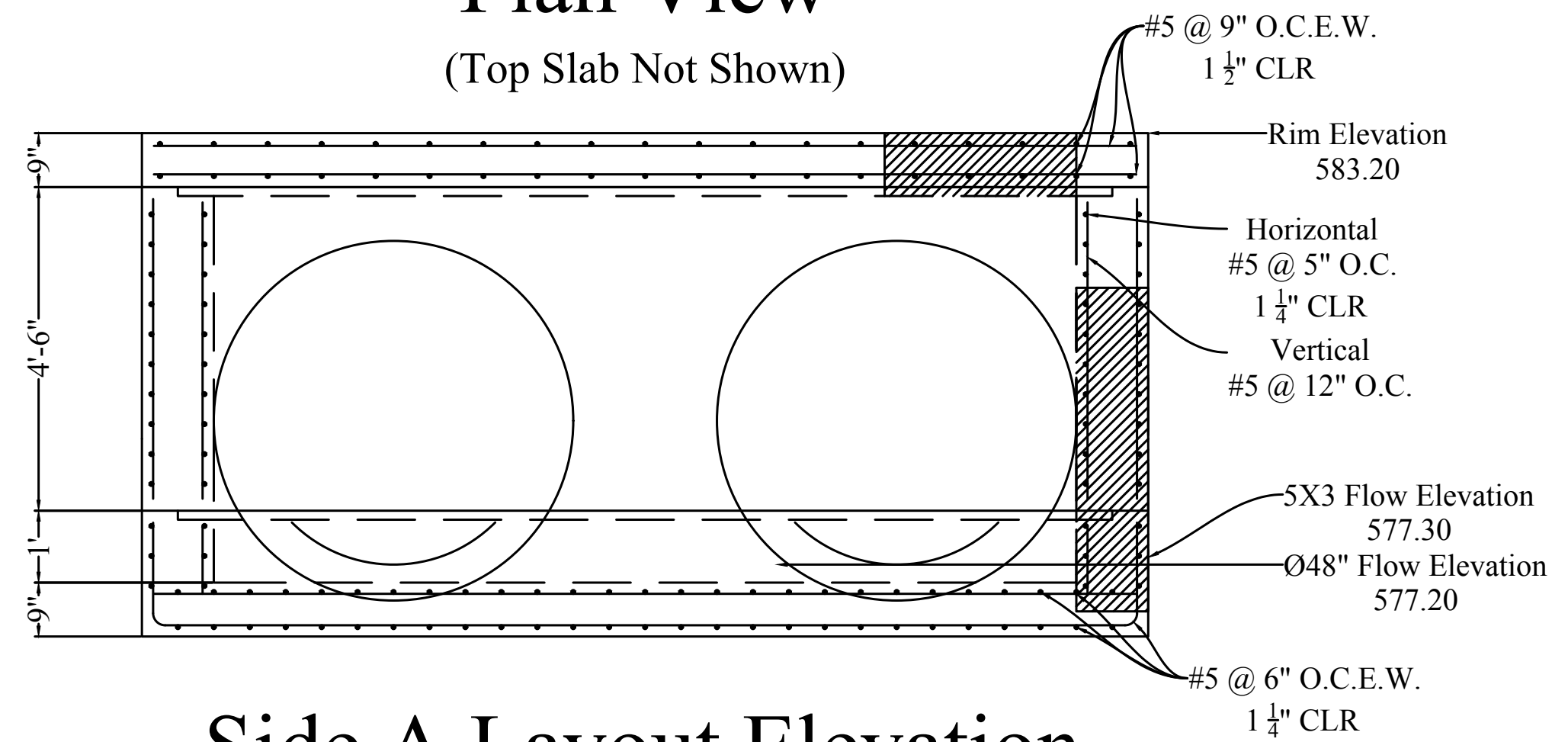
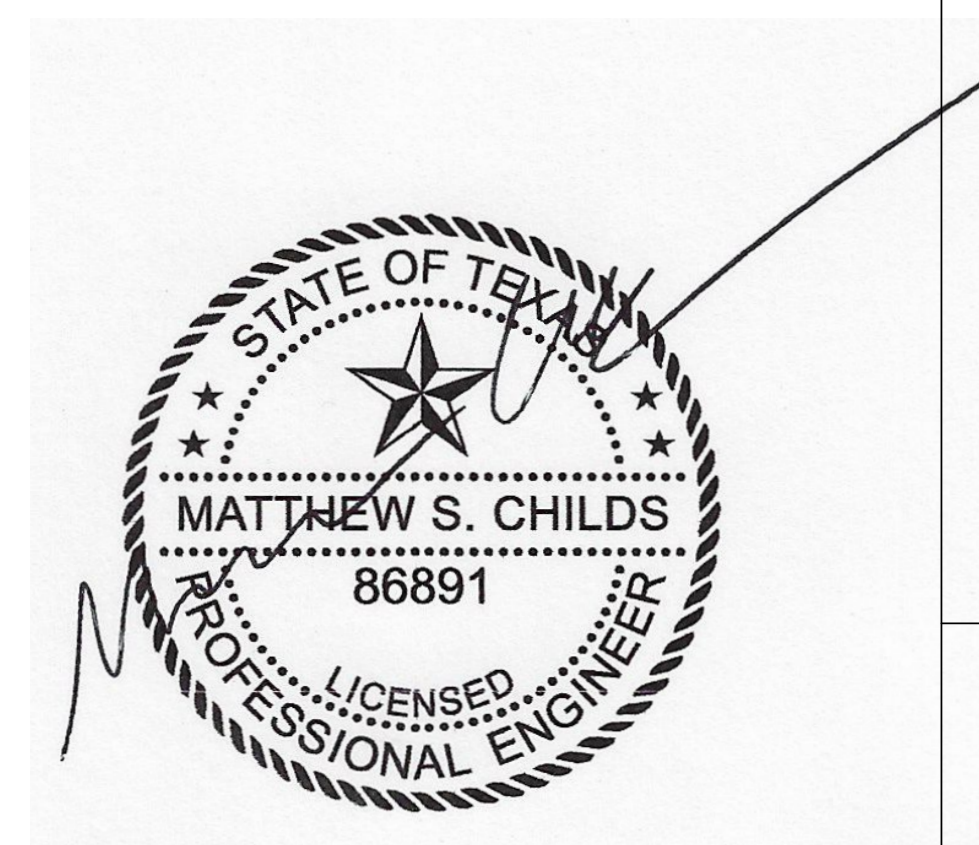
Plan View
(Top Slab Not Shown)



Top Slab Plan View

(2) Extra Bars
Each Side Of Opening
Top & Bottom Of Slab

(2) #4 Trim Bars
Each Corner Of Openings
Top & Bottom Of Slab



Side A Layout Elevation

Individual Weights		
Base	4'-6" Riser	Top Slab
26100	11500	13675

- Notes:
- Concrete: Design Strength 5,000 PSI @ 28 Days
 - Reinforcement: ASTM A-615, Grade 60 or ASTM A-1064 Welded Wire Fabric
 - Pedestrian Rated
 - Panel Formed Tolerances +/- 1 1/4" For Over All Dimensions & Height
 - Junction Box to be manufactured at the Turner Co, Manufacturer to notify Engineer of dates of manufacture for pre and post pour inspection

<p>Turner Co. P.O. Box 885 Rhome, TX 76078</p>	DRAWN BY: TSH	JOB NO: TBD	DATE: 06/24/22	WEIGHT: 51275#	Revision Number R3	Sheet 1 of 2
	PRODUCT Station 9+89.54 12'-0" X 10'-0" Junction Box			JOB NAME Rawhide Basin Addison, TX		

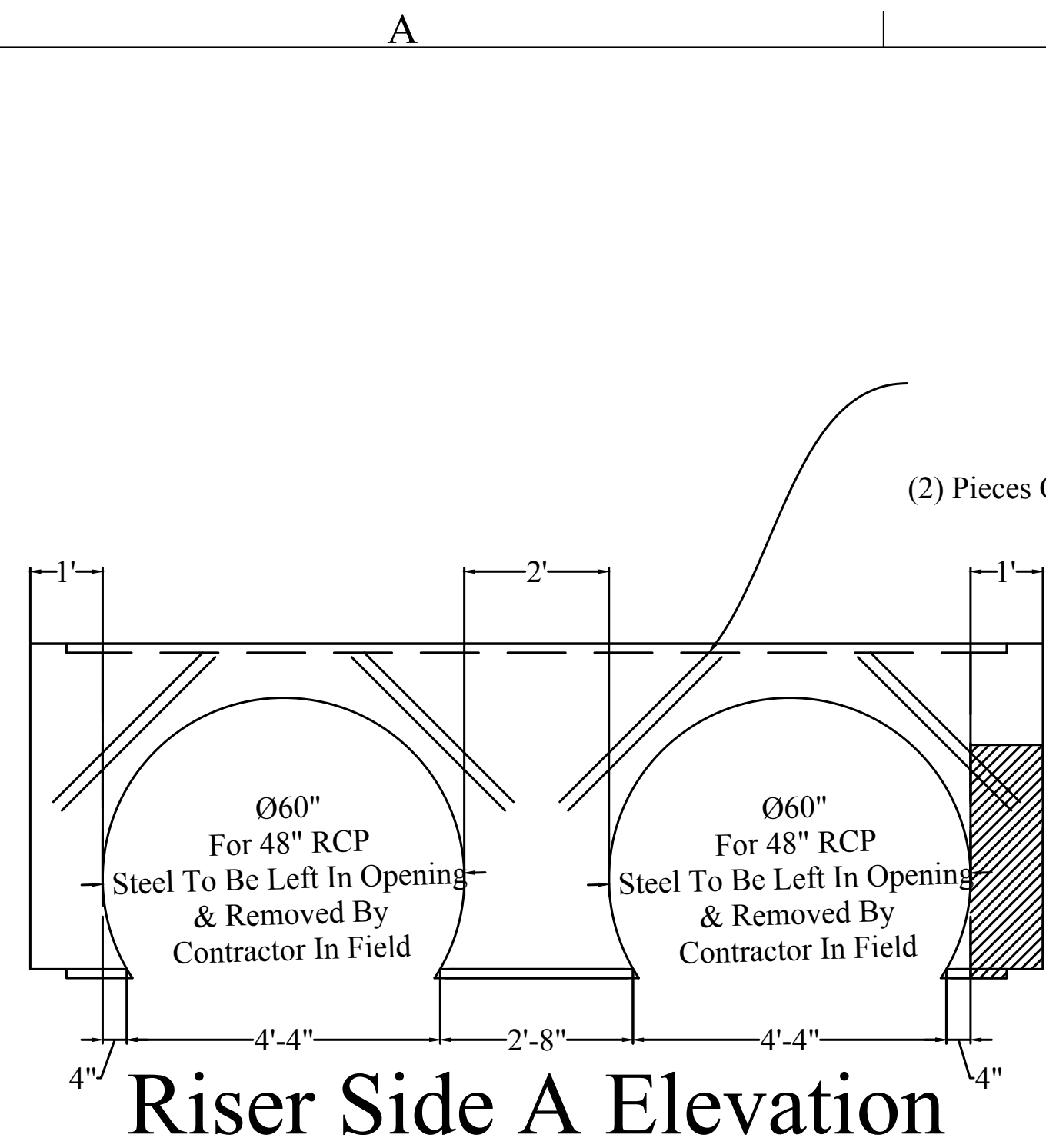
REV. NO.	DATE	DESCRIPTION	BY
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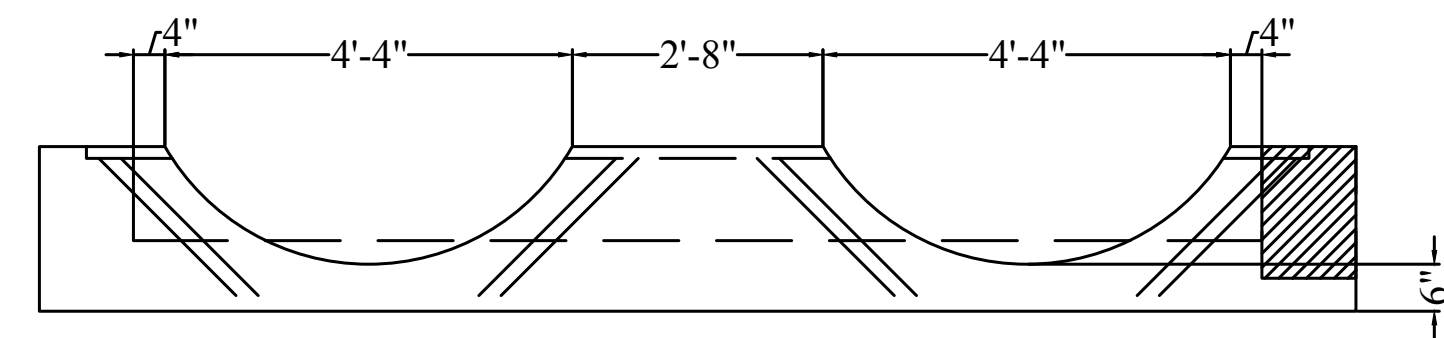
CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

JUNCTION BOX DETAILS						
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CRIADO	CRIADO	JUNE 2022	AS SHOWN	R14799.00		79

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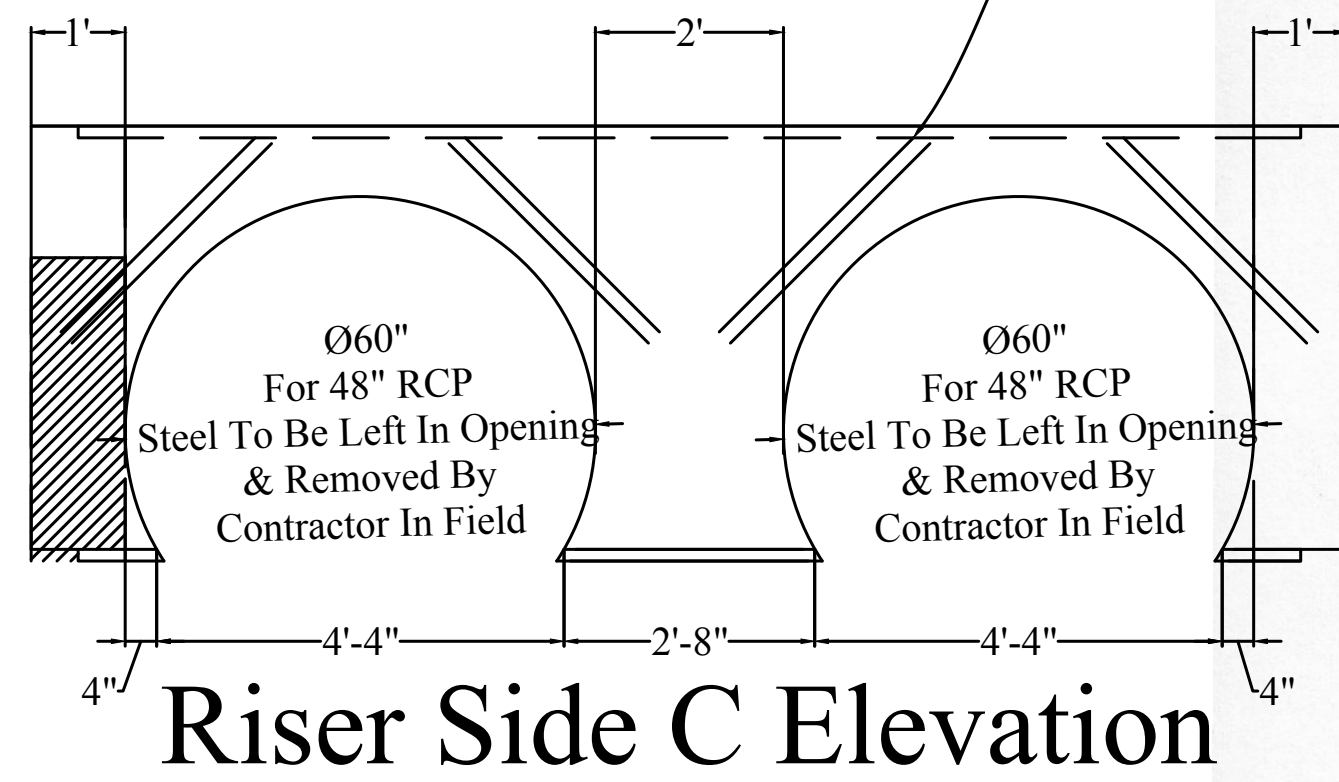


Riser Side A Elevation

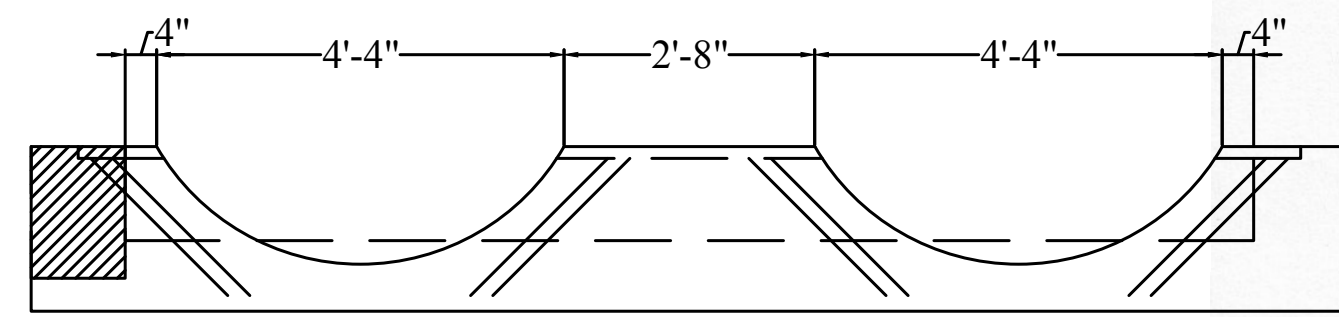


Base Side A Elevation

(2) #4 Trim Bars
Each Corner Of openings
Where Possible
(2) Pieces Of Extra Steel On Each Side Of Opening
(Not Shown For Clarity)

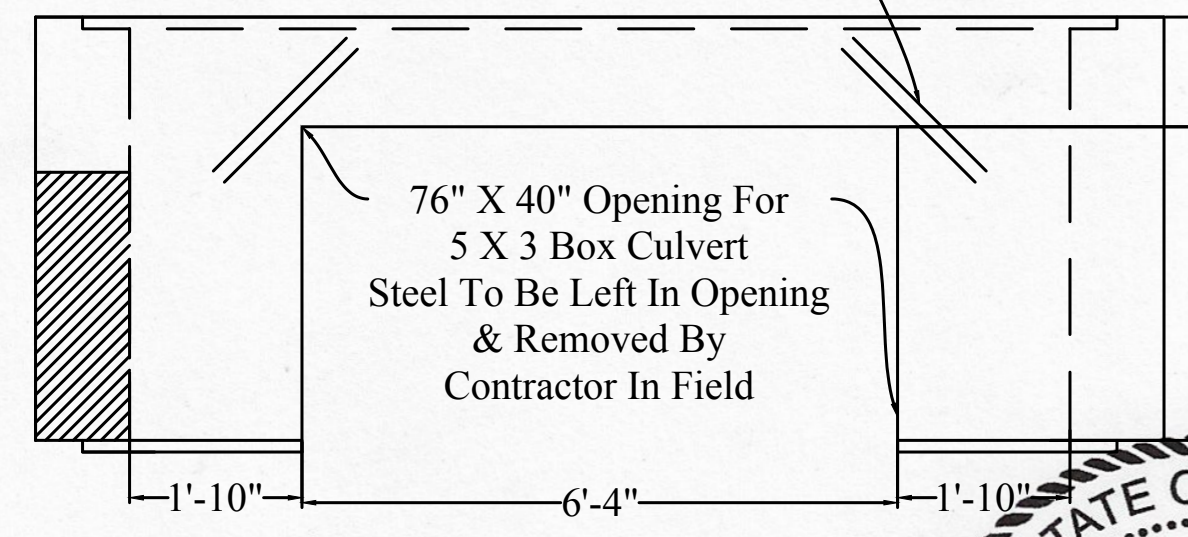


Riser Side C Elevation

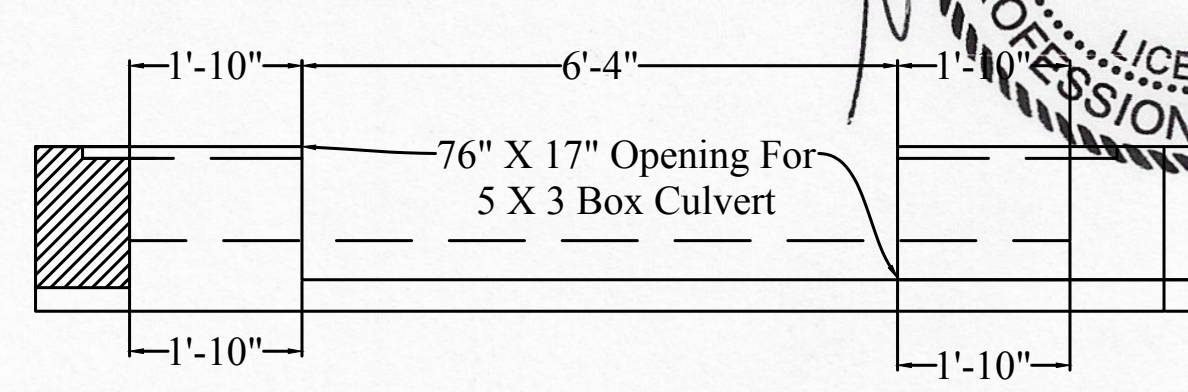


Base Side C Elevation

(2) #4 Trim Bars
Each Corner Of openings
Where Possible
(2) Pieces Of Extra Steel On Each Side Of Opening
(Not Shown For Clarity)



Riser Side B Elevation



Base Side B Elevation



- Notes:
1. Concrete: Design Strength 5,000 PSI @ 28 Days
 2. Reinforcement: ASTM A-615, Grade 60 or ASTM A-1064 Welded Wire Fabric
 3. Pedestrian Rated
 4. Panel Formed Tolerances +/- 1 1/4" For Over All Dimensions & Height
 5. Junction Box to be manufactured at the Turner Co, Manufacturer to notify Engineer of dates of manufacture for pre and post pour inspection

Individual Weights		
Base	4'-6" Riser	Top Slab
26100	11500	13675

<p>Turner Co. P.O. Box 885 Rhome, TX 76078</p>	DRAWN BY:	JOB NO:	DATE:	WEIGHT:	Revision Number	Sheet 2 of 2
	TSH	TBD	06/24/22	51275#	R3	
	PRODUCT			JOB NAME		
	Station 9+89.54			Rawhide Basin		
	12'-0" X 10'-0" Junction Box			Addison, TX		

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REV. NO.	DATE	DESCRIPTION	BY
1			
2			



CRIADO 4100 SPRING VALLEY ROAD, SUITE 1001
DALLAS, TX 75244
O: 972-392-9092 F: 972-392-9192
FIRM NO. F-4373

JUNCTION BOX DETAILS						
ADDISON RAWHIDE BASIN DRAINAGE AND SIDEWALK IMPROVEMENTS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.
6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
10. Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.
11. Traffic control devices should be in place only while work is actually in progress or a definite need exists.
12. The Engineer has the final decision on the location of all traffic control devices.
13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY NOTES:

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.
2. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES

1. Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.
2. Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

<p>THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov</p>
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

SHEET 1 OF 12



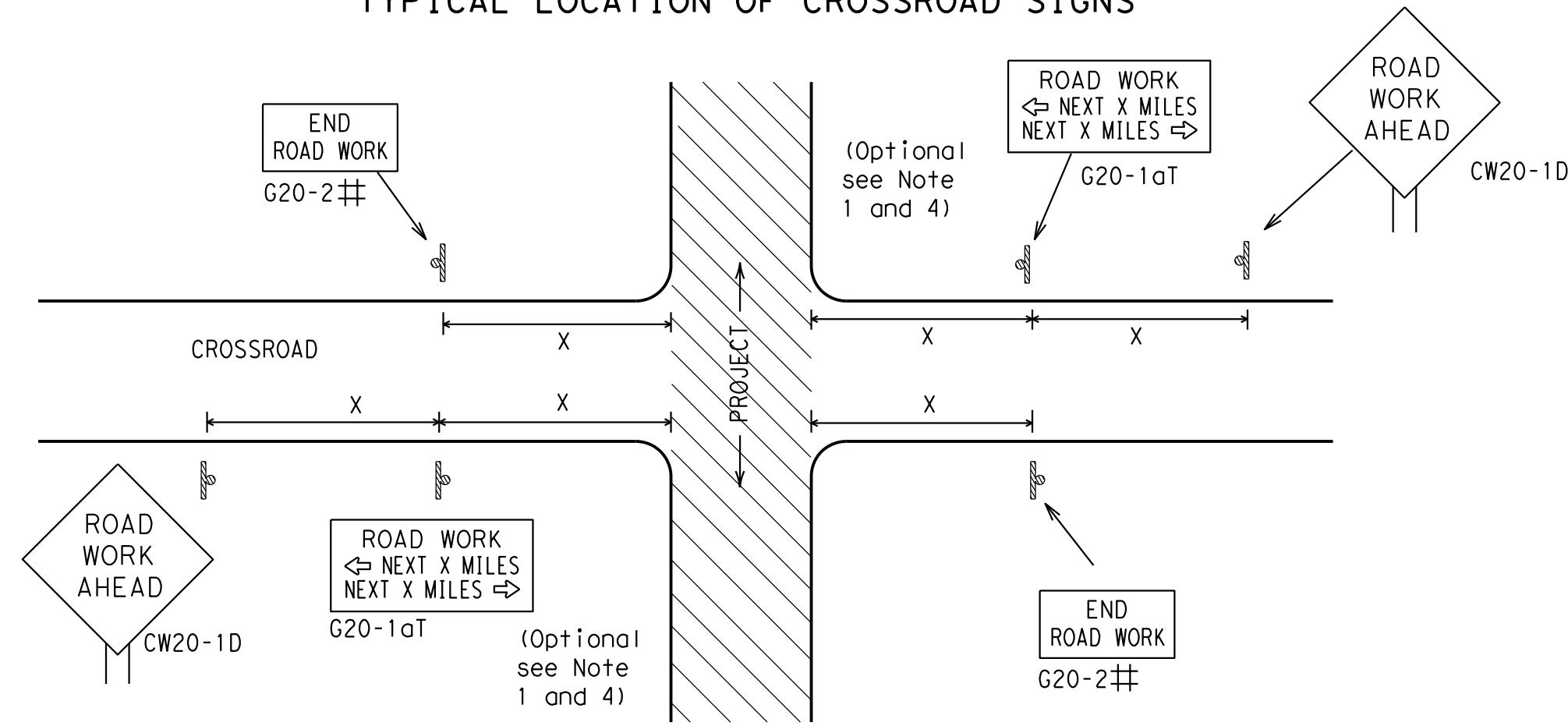
**BARRICADE AND CONSTRUCTION
 GENERAL NOTES
 AND REQUIREMENTS**

BC (1) - 21

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© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY				
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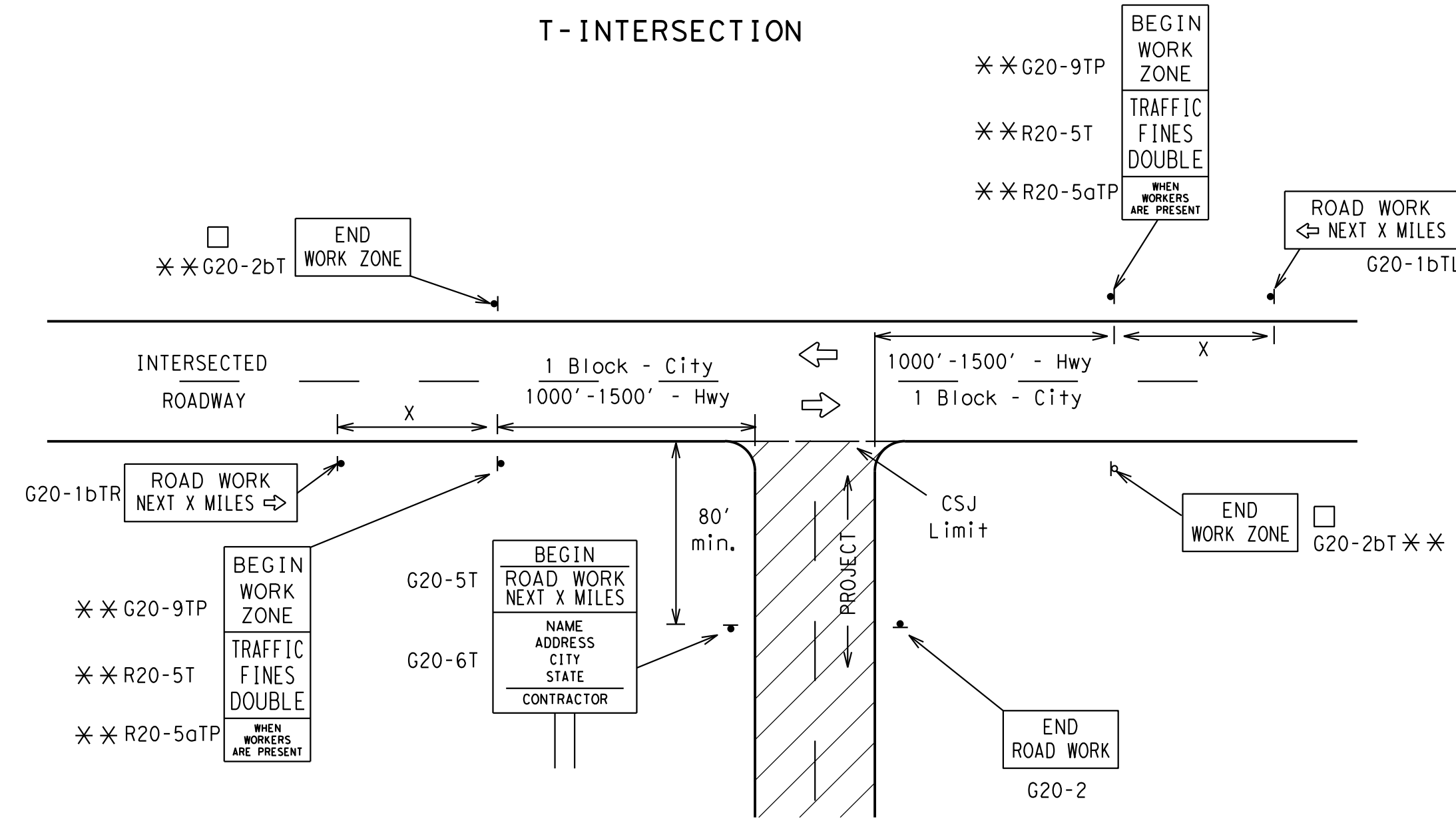
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TYPICAL LOCATION OF CROSSROAD SIGNS



- ## May be mounted on back of "ROAD WORK AHEAD" (CW20-1D) sign with approval of Engineer. (See note 2 below)
- The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
 - The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK" (G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume as per TMUTCD Part 5. This information shall be shown in the plans.
 - Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
 - The "ROAD WORK NEXT X MILES" (G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
 - Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
 - When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

- The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
- If construction closes the road at a T-intersection, the Contractor shall place the "CONTRACTOR NAME" (G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow (G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR) signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING^{1,5,6}

Sign Number or Series	SIZE		SPACING	
	Conventional Road	Expressway/Freeway	Posted Speed MPH	Sign Δ Spacing "x" Feet (Apprx.)
CW20 ⁴	48" x 48"	48" x 48"	30	120
CW21			35	160
CW22			40	240
CW23			45	320
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"	50	400
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"	60	600 ²
			65	700 ²
			70	800 ²
			80	1000 ²
*			*	* ³

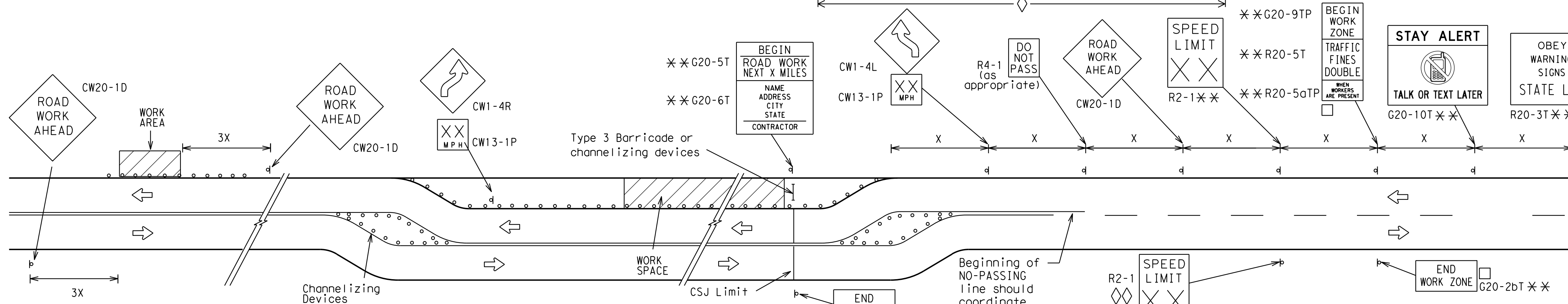
* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

Δ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

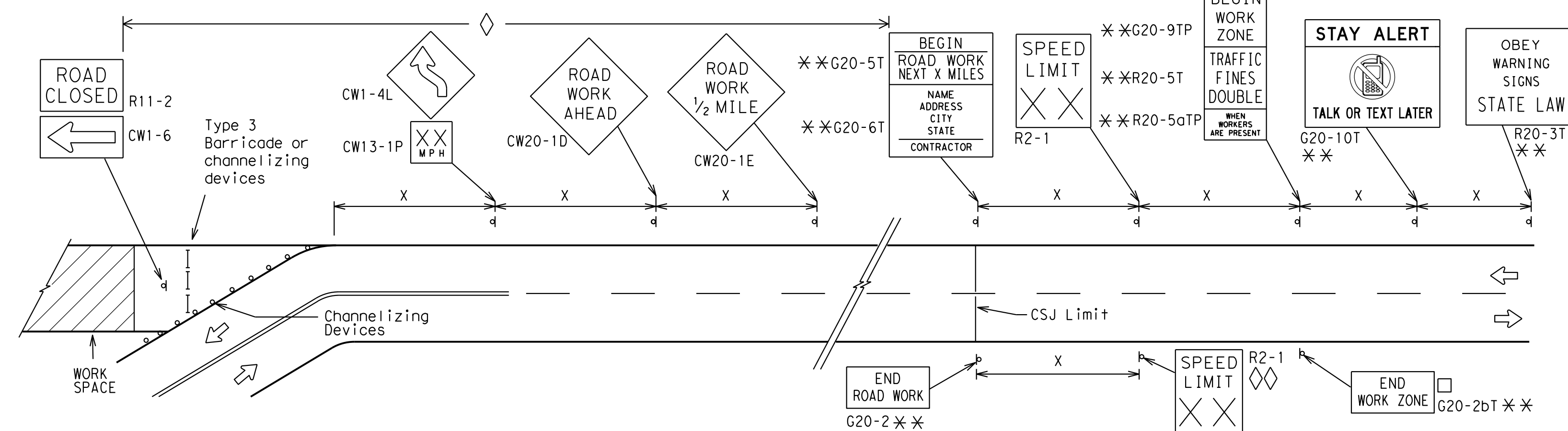
- Special or larger size signs may be used as necessary.
- Distance between signs should be increased as required to have 1500 feet advance warning.
- Distance between signs should be increased as required to have 1/2 mile or more advance warning.
- 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer as per TMUTCD Part 5. See Note 2 under "Typical Location of Crossroad Signs".
- Only diamond shaped warning sign sizes are indicated.
- See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



NOTES

- The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-5T) sign for each specific project. This distance shall replace the "x" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.
- The "BEGIN WORK ZONE" (G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.
 - ** CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.
 - ◇ Area for placement of "ROAD WORK AHEAD" (CW20-1D) sign and other signs or devices as called for on the Traffic Control Plan.
 - ◇◇ Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND	
—	Type 3 Barricade
○ ○ ○	Channelizing Devices
■	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12



BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC (2) - 21

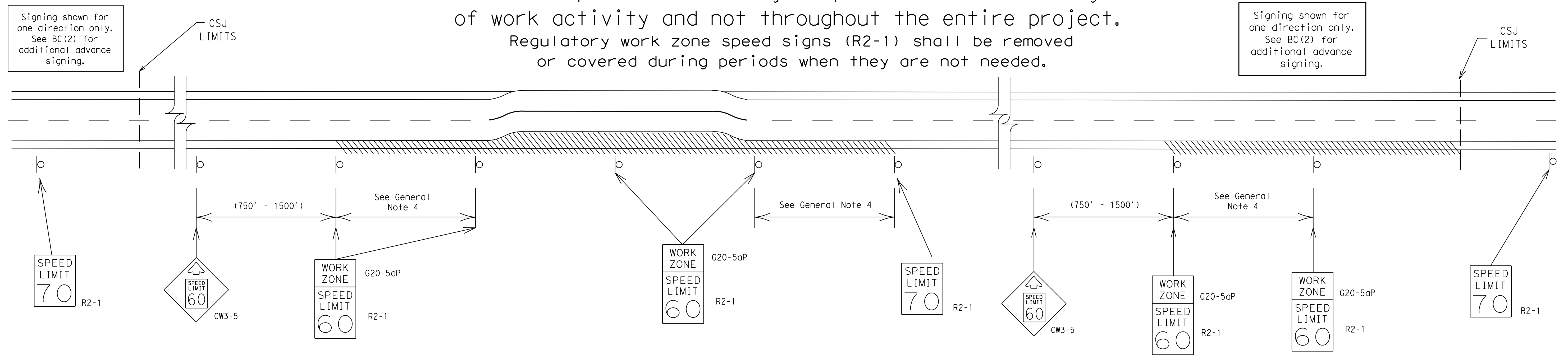
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© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
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7-13 5-21				
	DIST	COUNTY		SHEET NO.
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DATE: FILE:

TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

- rough road or damaged pavement surface
- substantial alteration of roadway geometrics (diversions)
- construction detours
- grade
- width
- other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the traveled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered. (See Removing or Covering on BC(4)).

GENERAL NOTES

- Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
- Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
- Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
- Frequency of work zone speed limit signs should be:

40 mph and greater	0.2 to 2 miles
35 mph and less	0.2 to 1 mile
- Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
- Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
- Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
- Techniques that may help reduce traffic speeds include but are not limited to:
 - Law enforcement.
 - Flagger stationed next to sign.
 - Portable changeable message sign (PCMS).
 - Low-power (drone) radar transmitter.
 - Speed monitor trailers or signs.
- Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
- For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

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SHEET 3 OF 12



BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

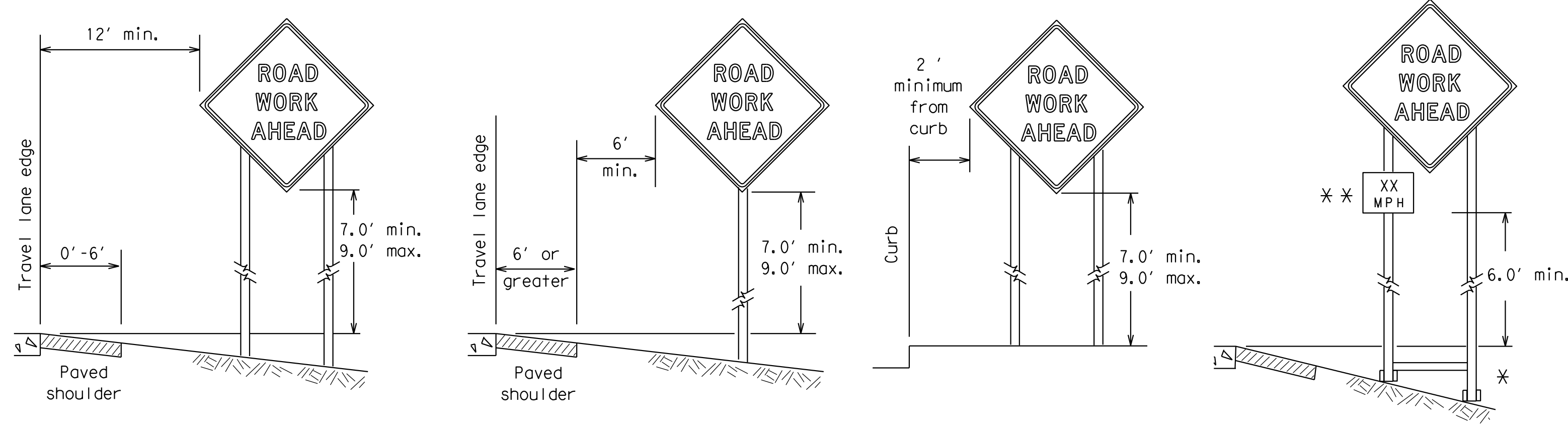
BC (3) - 21

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7-13	5-21	DIST	COUNTY			SHEET NO.			
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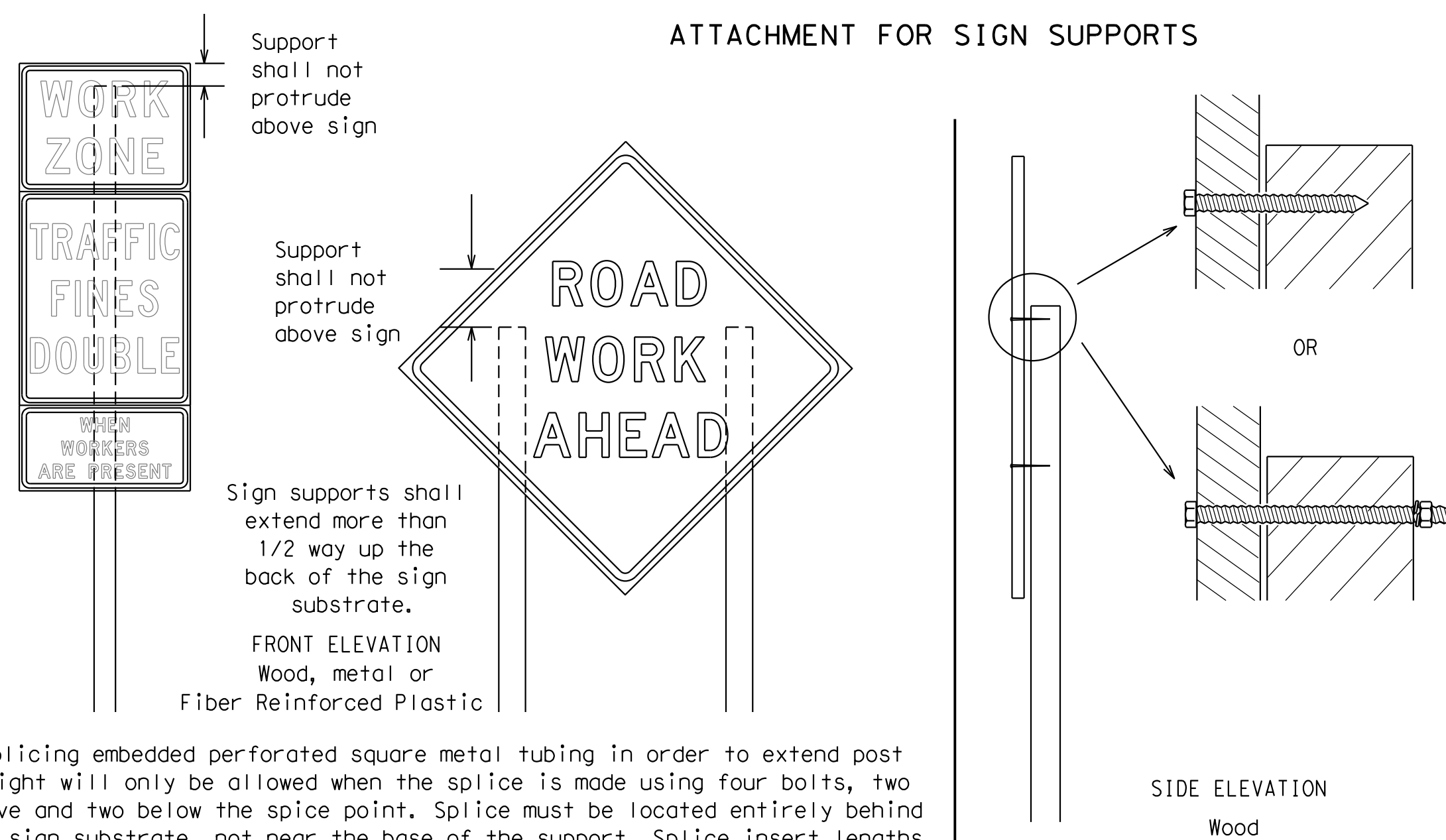
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

** When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

ATTACHMENT FOR SIGN SUPPORTS



Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the splice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

GENERAL NOTES FOR WORK ZONE SIGNS

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Barricades shall NOT be used as sign supports.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
- The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD) for small roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
- The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
- Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
- The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

- The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
 - Long-term stationary - work that occupies a location more than 3 days.
 - Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
 - Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
 - Short, duration - work that occupies a location up to 1 hour.
 - Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

- The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
- The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
- Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
- Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
- Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

- The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

- The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
- "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
- All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

- All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
- White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
- Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

- All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

- When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
- Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
- Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
- When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
- Burlap shall NOT be used to cover signs.
- Duct tape or other adhesive material shall NOT be affixed to a sign face.
- Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

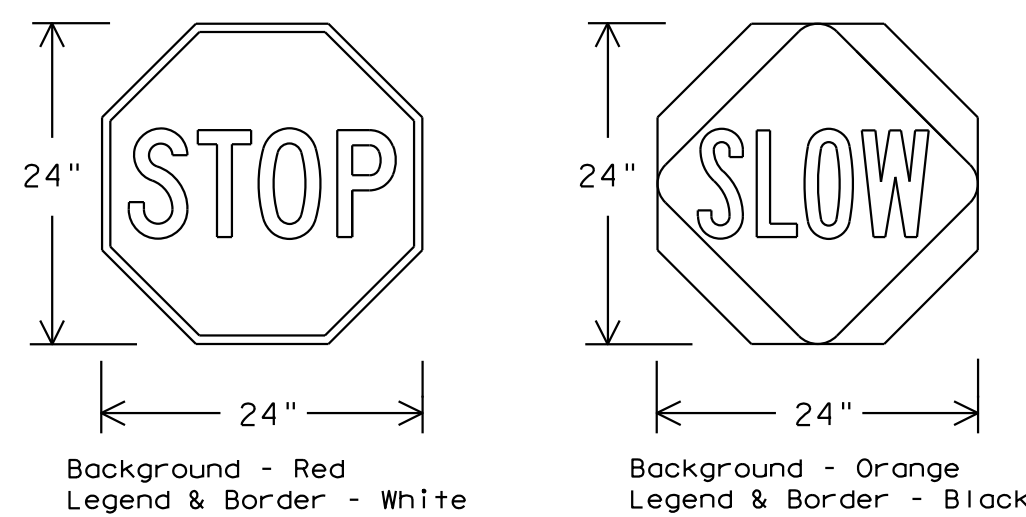
- Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
- The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
- Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
- Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
- Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as fire inner tubes) shall NOT be used.
- Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

- Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

STOP/SLOW PADDLES

- STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24".
- STOP/SLOW paddles shall be retroreflectorized when used at night.
- STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
- Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



SHEETING REQUIREMENTS (WHEN USED AT NIGHT)		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B _{FL} OR C _{FL} SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

- Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (LOGO), or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
- When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the TS-CD standard.
- When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
- If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
- If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC standard sheets, TLRS standard sheets or the CWZTCD list. The signs shall meet the required mounting heights shown on the BC, or the SMD standard sheets during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
- Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

SHEET 4 OF 12

Texas Department of Transportation

Traffic Safety Division Standard

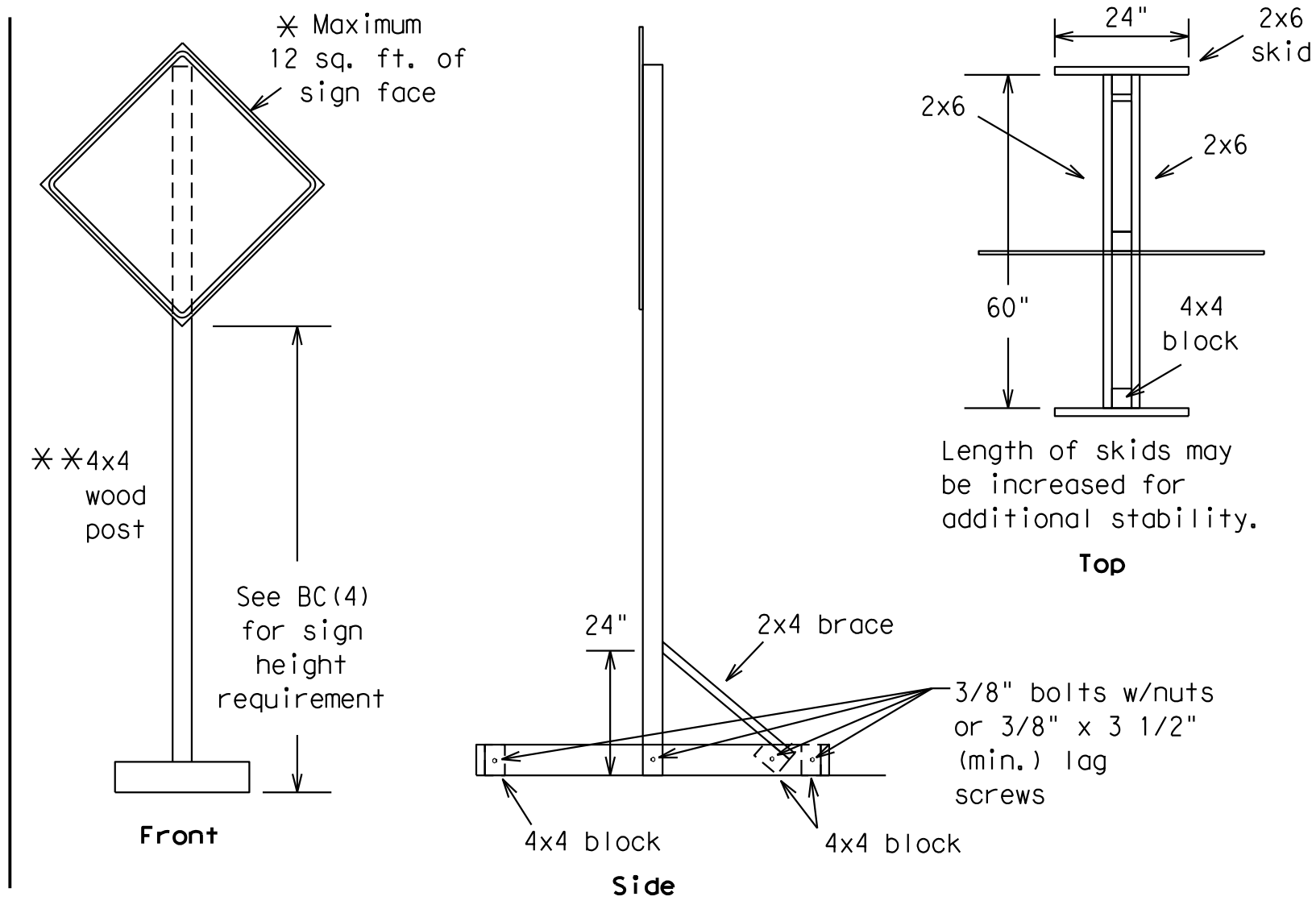
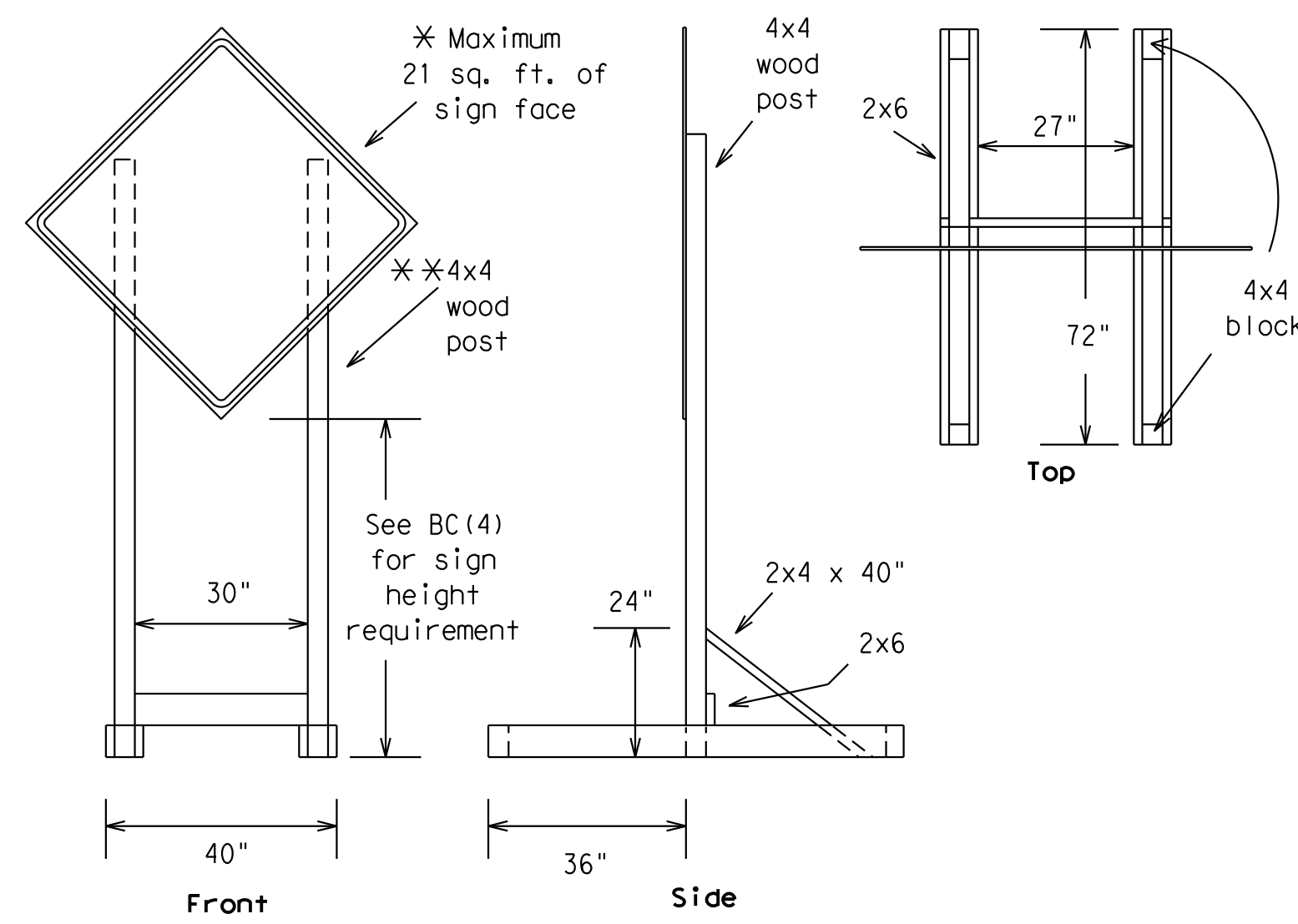
BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

BC (4) - 21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
9-07 8-14				
7-13 5-21				
			DIST	COUNTY
				SHEET NO.
				84

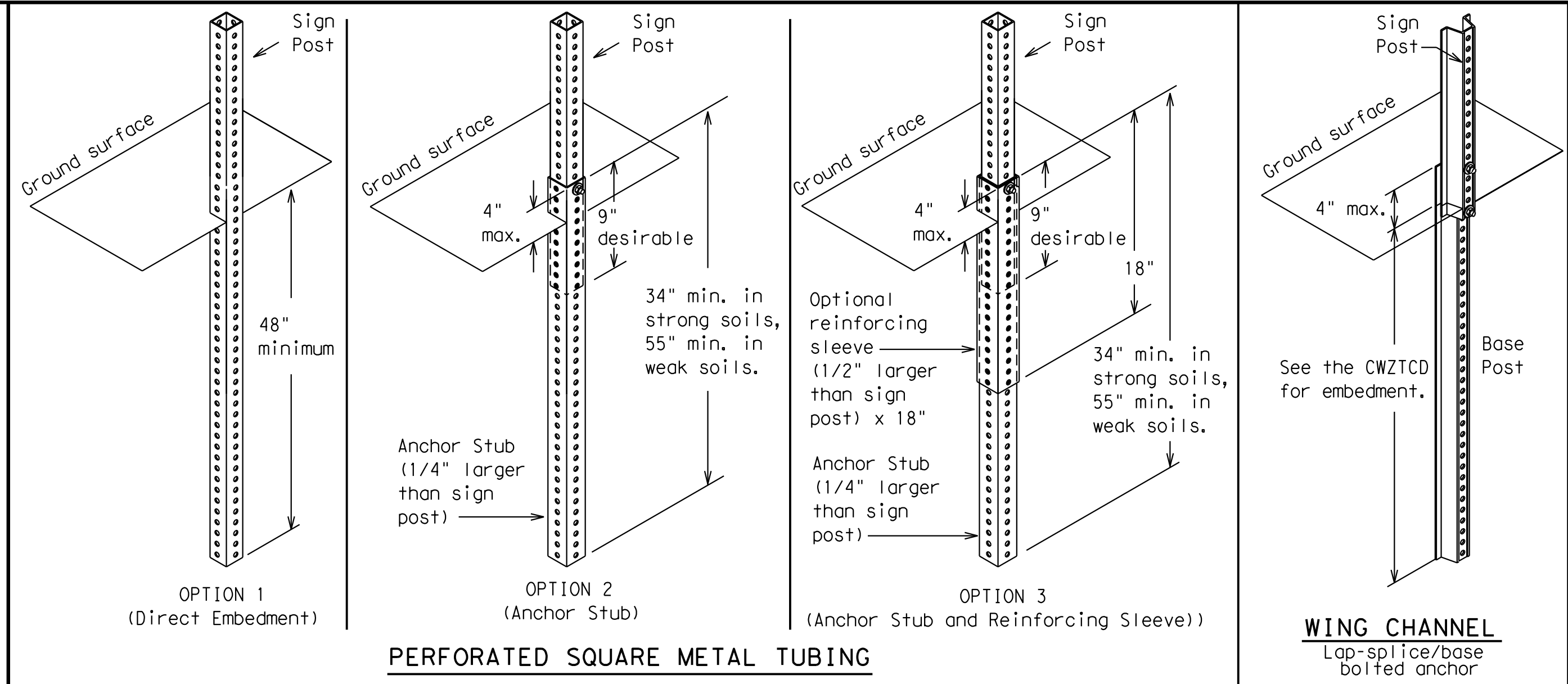
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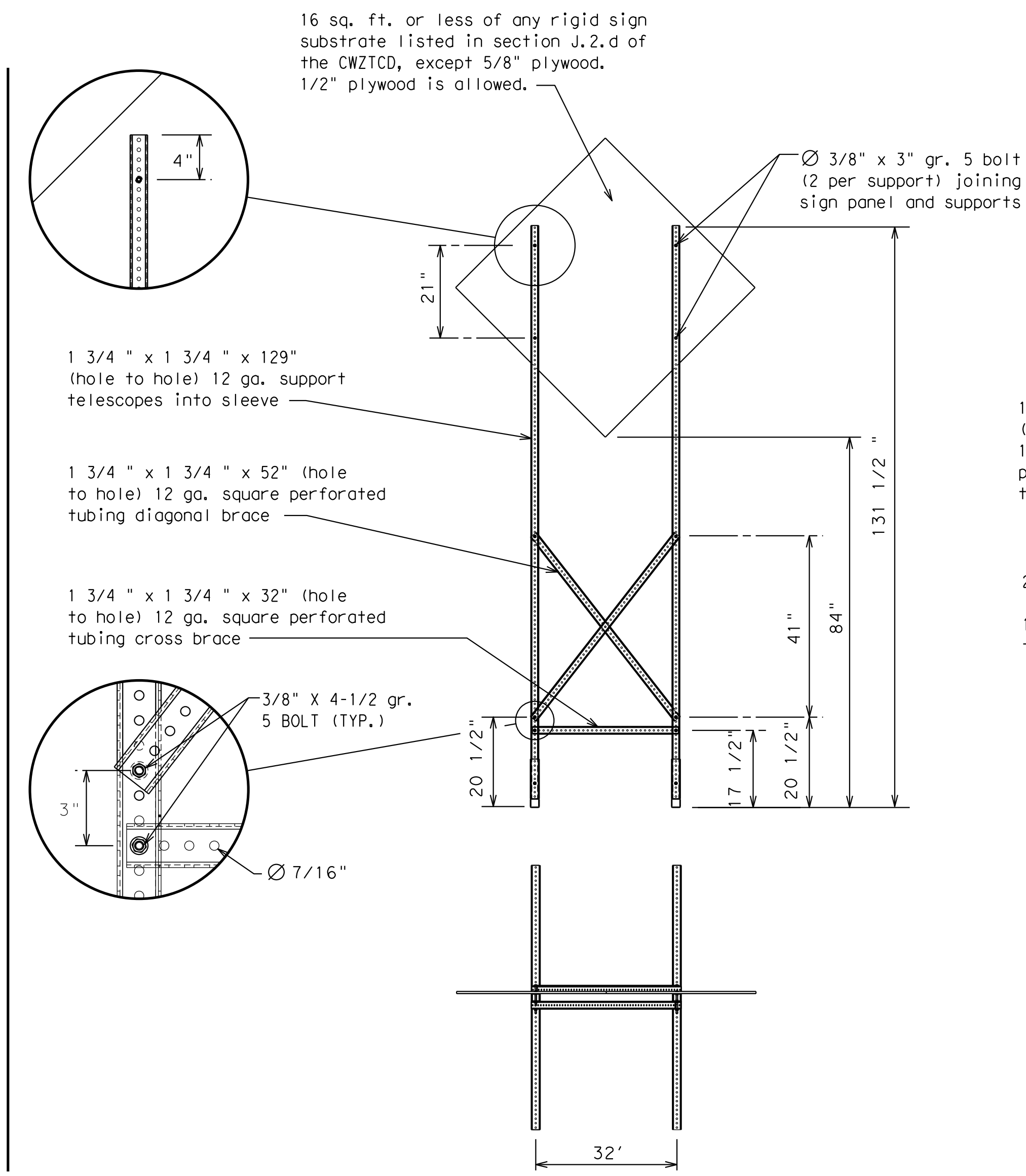
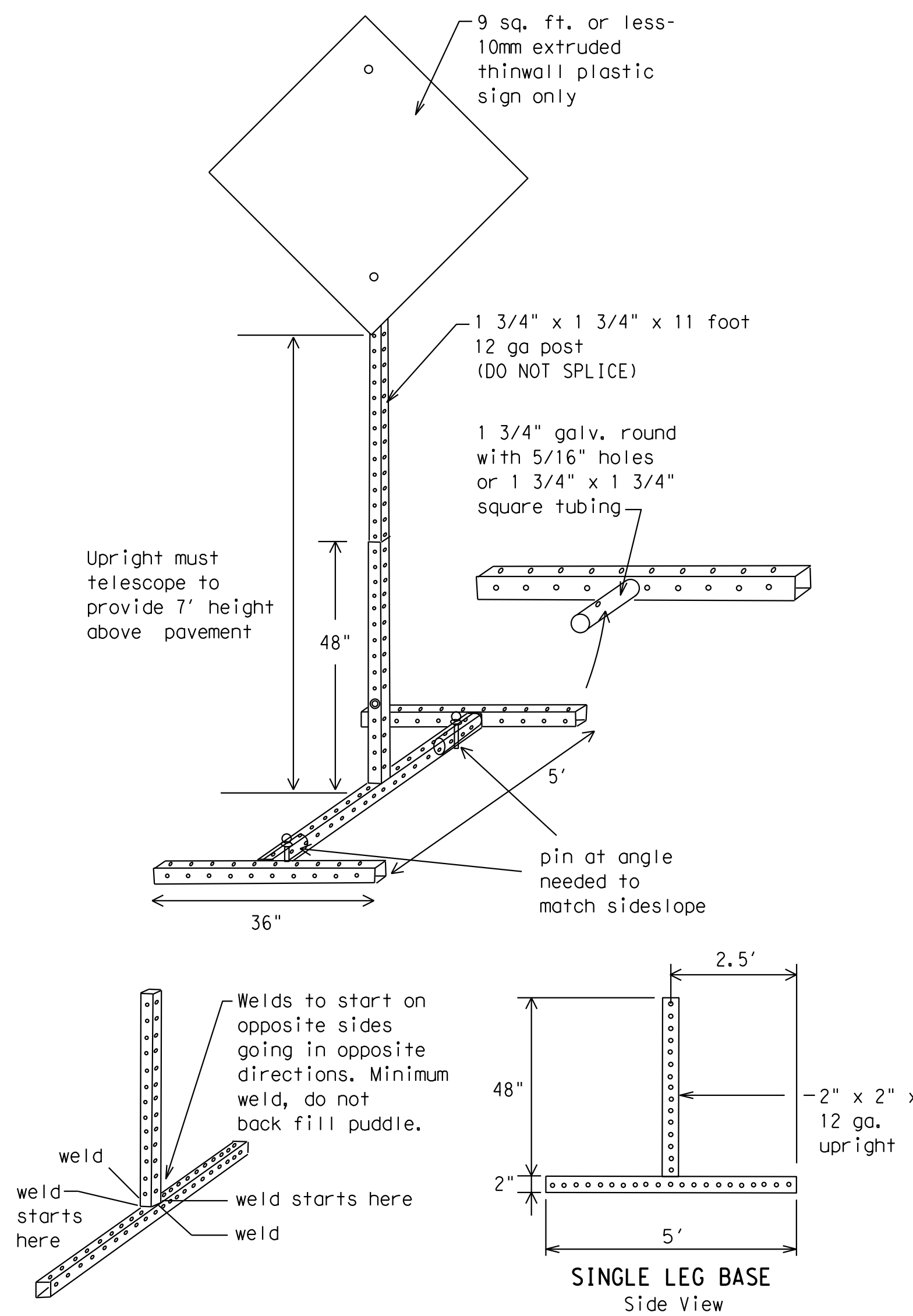
SKID MOUNTED WOOD SIGN SUPPORTS

* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS



GROUND MOUNTED SIGN SUPPORTS

Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support. The maximum sign square footage shall adhere to the manufacturer's recommendation. Two post installations can be used for larger signs.



SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS

* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS

WEDGE ANCHORS
Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS
MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

- GENERAL NOTES**
- Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
 - No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
 - When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.
- * See BC(4) for definition of "Work Duration."
 - ** Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.
 - See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

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BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC (5) - 21

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REVISIONS				
9-07 8-14				
7-13 5-21				
	DIST	COUNTY	SHEET NO.	
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DATE: FILE:

WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

PORTABLE CHANGEABLE MESSAGE SIGNS

- The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
- Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
- Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
- Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
- Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
- When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
- The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
- The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
- Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
- Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
- Do not use the word "Danger" in message.
- Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
- Do not display messages that scroll horizontally or vertically across the face of the sign.
- The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
- PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
- Each line of text should be centered on the message board rather than left or right justified.
- If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

FREEWAY CLOSED X MILE	FRONTAGE ROAD CLOSED
ROAD CLOSED AT SH XXX	SHOULDER CLOSED XXX FT
ROAD CLSD AT FM XXXX	RIGHT LN CLOSED XXX FT
RIGHT X LANES CLOSED	RIGHT X LANES OPEN
CENTER LANE CLOSED	DAYTIME LANE CLOSURES
NIGHT LANE CLOSURES	I-XX SOUTH EXIT CLOSED
VARIOUS LANES CLOSED	EXIT XXX CLOSED X MILE
EXIT CLOSED	RIGHT LN TO BE CLOSED
MALL DRIVEWAY CLOSED	X LANES CLOSED TUE - FRI
XXXXXXXXX BLVD CLOSED	

Other Condition List

ROADWORK XXX FT	ROAD REPAIRS XXXX FT
FLAGGER XXXX FT	LANE NARROWS XXXX FT
RIGHT LN NARROWS XXXX FT	TWO-WAY TRAFFIC XX MILE
MERGING TRAFFIC XXXX FT	CONST TRAFFIC XXX FT
LOOSE GRAVEL XXXX FT	UNEVEN LANES XXXX FT
DETOUR X MILE	ROUGH ROAD XXXX FT
ROADWORK PAST SH XXXX	ROADWORK NEXT FRI-SUN
BUMP XXXX FT	US XXX EXIT X MILES
TRAFFIC SIGNAL XXXX FT	LANES SHIFT *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

MERGE RIGHT	FORM X LINES RIGHT
DETOUR NEXT X EXITS	USE XXXXX RD EXIT
USE EXIT XXX	USE EXIT I-XX NORTH
STAY ON US XXX SOUTH	USE I-XX E TO I-XX N
TRUCKS USE US XXX N	WATCH FOR TRUCKS
WATCH FOR TRUCKS	EXPECT DELAYS
EXPECT DELAYS	PREPARE TO STOP
REDUCE SPEED XXX FT	END SHOULDER USE
USE OTHER ROUTES	WATCH FOR WORKERS
STAY IN LANE *	

Location List

AT FM XXXX
BEFORE RAILROAD CROSSING
NEXT X MILES
PAST US XXX EXIT
XXXXXXXXX TO XXXXXXXX
US XXX TO FM XXXX

Warning List

SPEED LIMIT XX MPH
MAXIMUM SPEED XX MPH
MINIMUM SPEED XX MPH
ADVISORY SPEED XX MPH
RIGHT LANE EXIT
USE CAUTION
DRIVE SAFELY
DRIVE WITH CARE

** Advance Notice List

TUE-FRI XX AM-X PM
APR XX-XX X PM-X AM
BEGINS MONDAY
BEGINS MAY XX
MAY X-X XX PM - XX AM
NEXT FRI-SUN
XX AM TO XX PM
NEXT TUE AUG XX
TONIGHT XX PM-XX AM

** See Application Guidelines Note 6.

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WORD OR PHRASE	ABBREVIATION	WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD	Major	MAJ
Alternate	ALT	Miles	MI
Avenue	AVE	Miles Per Hour	MPH
Best Route	BEST RTE	Minor	MNR
Boulevard	BLVD	Monday	MON
Bridge	BRDG	Normal	NORM
Canal	CANT	North	N
Center	CTR	Northbound	(route) N
Construction Ahead	CONST AHD	Parking	PKING
CROSSING	XING	Road	RD
Detour Route	DETOUR RTE	Right Lane	RT LN
Do Not	DONT	Saturday	SAT
East	E	Service Road	SERV RD
Eastbound	(route) E	Shoulder	SHLDR
Emergency	EMER	Slippery	SLIP
Emergency Vehicle	EMER VEH	South	S
Entrance, Enter	ENT	Southbound	(route) S
Express Lane	EXP LN	Speed	SPD
Expressway	EXPWY	Street	ST
XXXX Feet	XXXX FT	Sunday	SUN
Fog Ahead	FOG AHD	Telephone	PHONE
Freeway	FRWY, FWY	Temporary	TEMP
Freeway Blocked	FWY BLKD	Thursday	THURS
Friday	FRI	To Downtown	TO DWNTN
Hazardous Driving	HAZ DRIVING	Traffic	TRAF
Hazardous Material	HAZMAT	Travelers	TRVLR
High-Occupancy Vehicle	HOV	Tuesday	TUES
Highway	Hwy	Time Minutes	TIME MIN
Hour(s)	HR, HRS	Upper Level	UPR LEVEL
Information	INFO	Vehicles (s)	VEH, VEHS
It Is	ITS	Warning	WARN
Junction	JCT	Wednesday	WED
Left	LFT	Weight Limit	WT LIMIT
Left Lane	LFT LN	West	W
Lane Closed	LN CLOSED	Westbound	(route) W
Lower Level	LWR LEVEL	Wet Pavement	WET PVMT
Maintenance	MAINT	Will Not	WONT

Roadway designation # IH-number, US-number, SH-number, FM-number

APPLICATION GUIDELINES

- Only 1 or 2 phases are to be used on a PCMS.
- The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
- A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
- A Location Phase is necessary only if a distance or location is not included in the first phase selected.
- If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
- For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

- When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
- When symbol signs, such as the "Flagger Symbol" (CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
- When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
- A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

WORDING ALTERNATIVES

- The words RIGHT, LEFT and ALL can be interchanged as appropriate.
- Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
- EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
- Highway names and numbers replaced as appropriate.
- ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
- AHEAD may be used instead of distances if necessary.
- FT and MI, MILE and MILES interchanged as appropriate.
- AT, BEFORE and PAST interchanged as needed.
- Distances or AHEAD can be eliminated from the message if a location phase is used.

SHEET 6 OF 12



BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

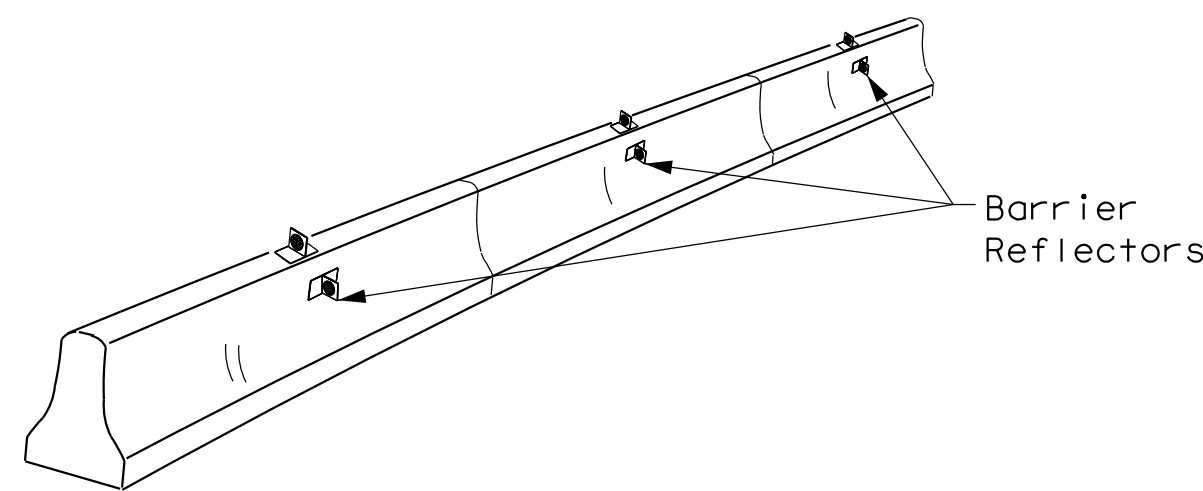
BC (6) - 21

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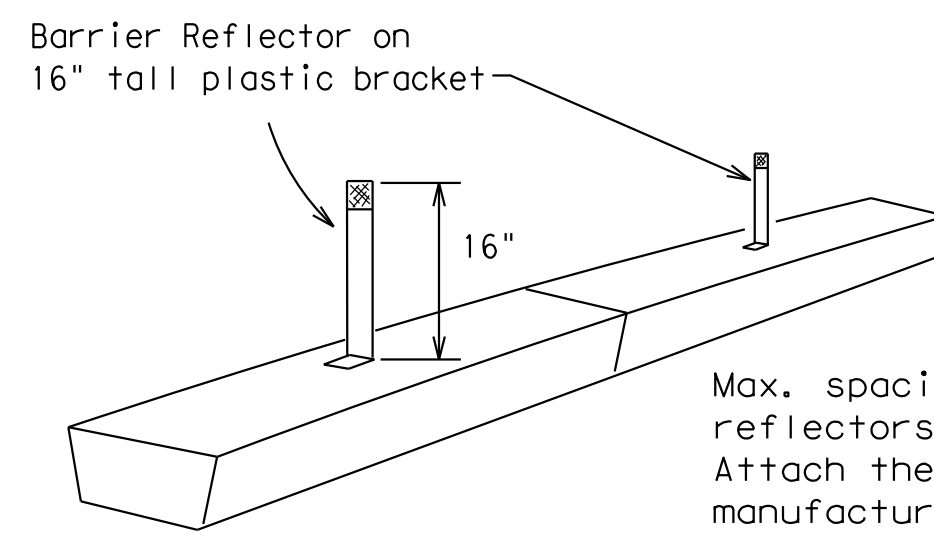
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- Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
- Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.



CONCRETE TRAFFIC BARRIER (CTB)

- Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
- Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional) while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
- When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
- Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
- Maximum spacing of Barrier Reflectors is forty (40) feet.
- Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
- Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
- Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
- Single slope barriers shall be delineated as shown on the above detail.

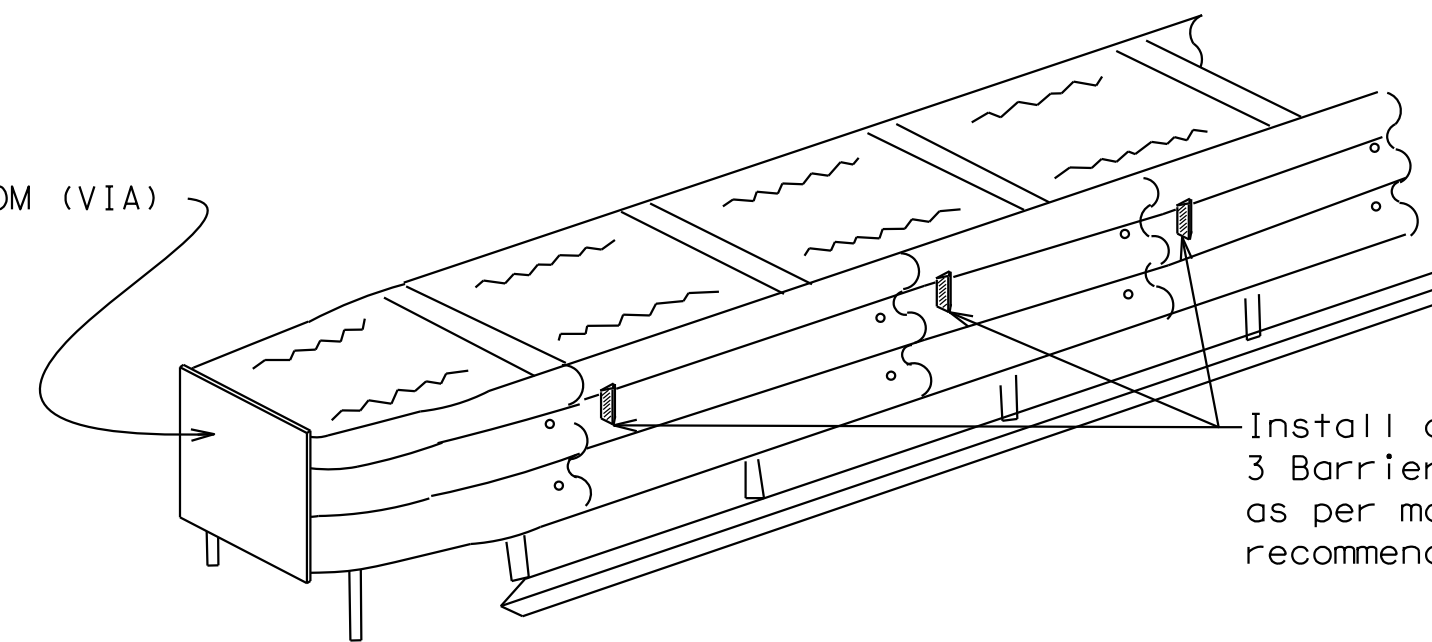


LOW PROFILE CONCRETE BARRIER (LPCB)

LOW PROFILE CONCRETE BARRIER (LPCB) USED IN WORK ZONES

LPCB is approved for use in work zone locations, where the posted speed is 45mph, or less. See Roadway Standard Sheet LPCB.

Max. spacing of barrier reflectors is 20 feet. Attach the delineators as per manufacturer's recommendations.



DELINEATION OF END TREATMENTS

END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet the appropriate crashworthy standards as defined in the Manual for Assessing Safety Hardware (MASH). Refer to the CWZTCD List for approved end treatments and manufacturers.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS

WARNING LIGHTS

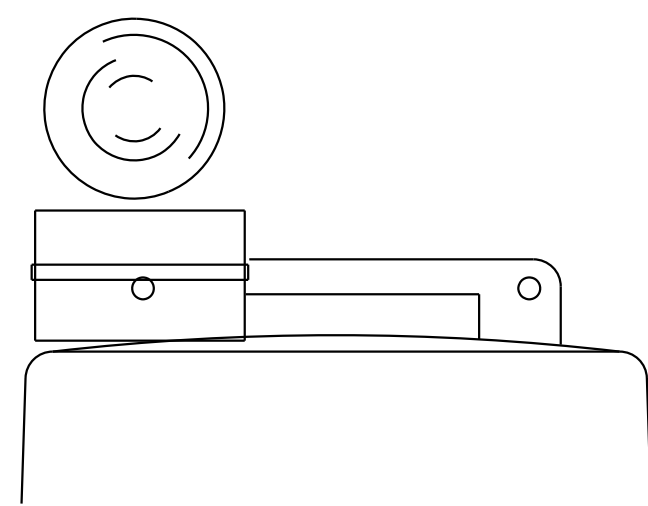
- Warning lights shall meet the requirements of the TMUTCD.
- Warning lights shall NOT be installed on barricades.
- Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B_{FL} or C_{FL} Sheeting meeting the requirements of Departmental Material Specification DMS-8300.
- Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
- The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
- When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
- When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
- The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

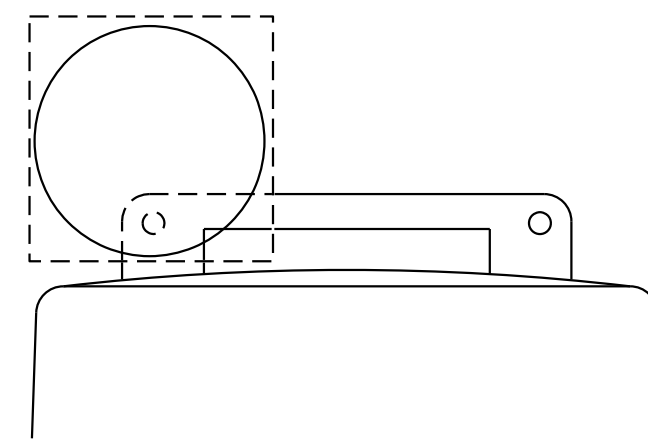
- Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
- Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
- A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
- Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
- Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
- Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
- The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

- A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
- The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCD.
- The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
- Round reflectors shall be fully reflectorized, including the area where attached to the drum.
- Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
- The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
- When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
- The warning reflector should be mounted on the side of the handle nearest approaching traffic.
- The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.



Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.

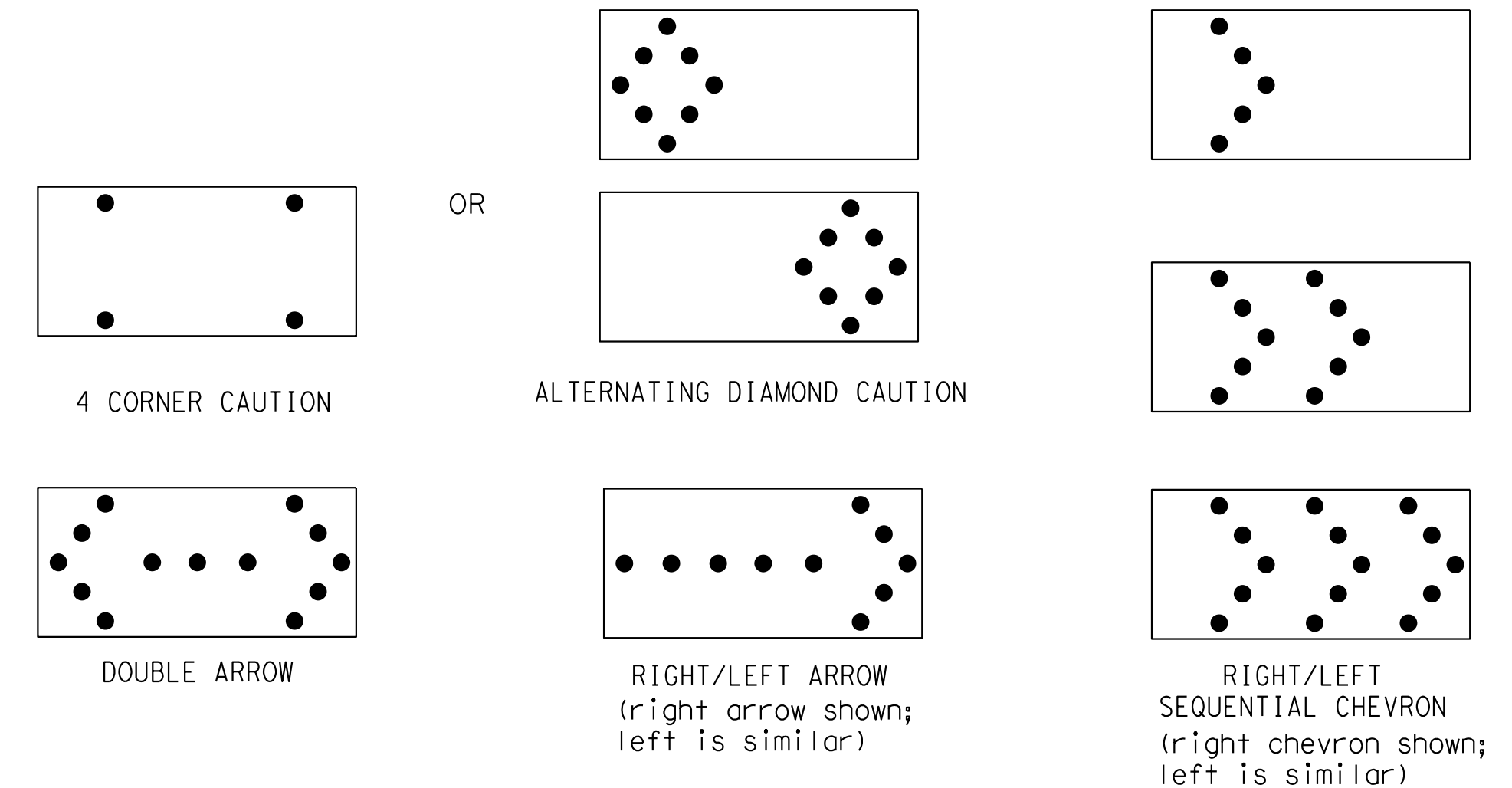


Warning reflector may be round or square. Must have a yellow reflective surface area of at least 30 square inches

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Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

- The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
- Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
- The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
- The Flashing Arrow Board should be able to display the following symbols:



- The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
- The straight line caution display is NOT ALLOWED.
- The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
- Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
- The sequential arrow display is NOT ALLOWED.
- The flashing arrow display is the TxDOT standard; however, the sequential chevron display may be used during daylight operations.
- The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
- A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
- A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
- Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION
Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

FLASHING ARROW BOARDS

SHEET 7 OF 12

TRUCK-MOUNTED ATTENUATORS

- Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the Manual for Assessing Safety Hardware (MASH).
- Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
- Refer to the CWZTCD for a list of approved TMAs.
- TMAs are required on freeways unless otherwise noted in the plans.
- A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
- The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.



BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC (7) - 21

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GENERAL NOTES

- For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
- For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections, one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
- For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
- Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
- The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

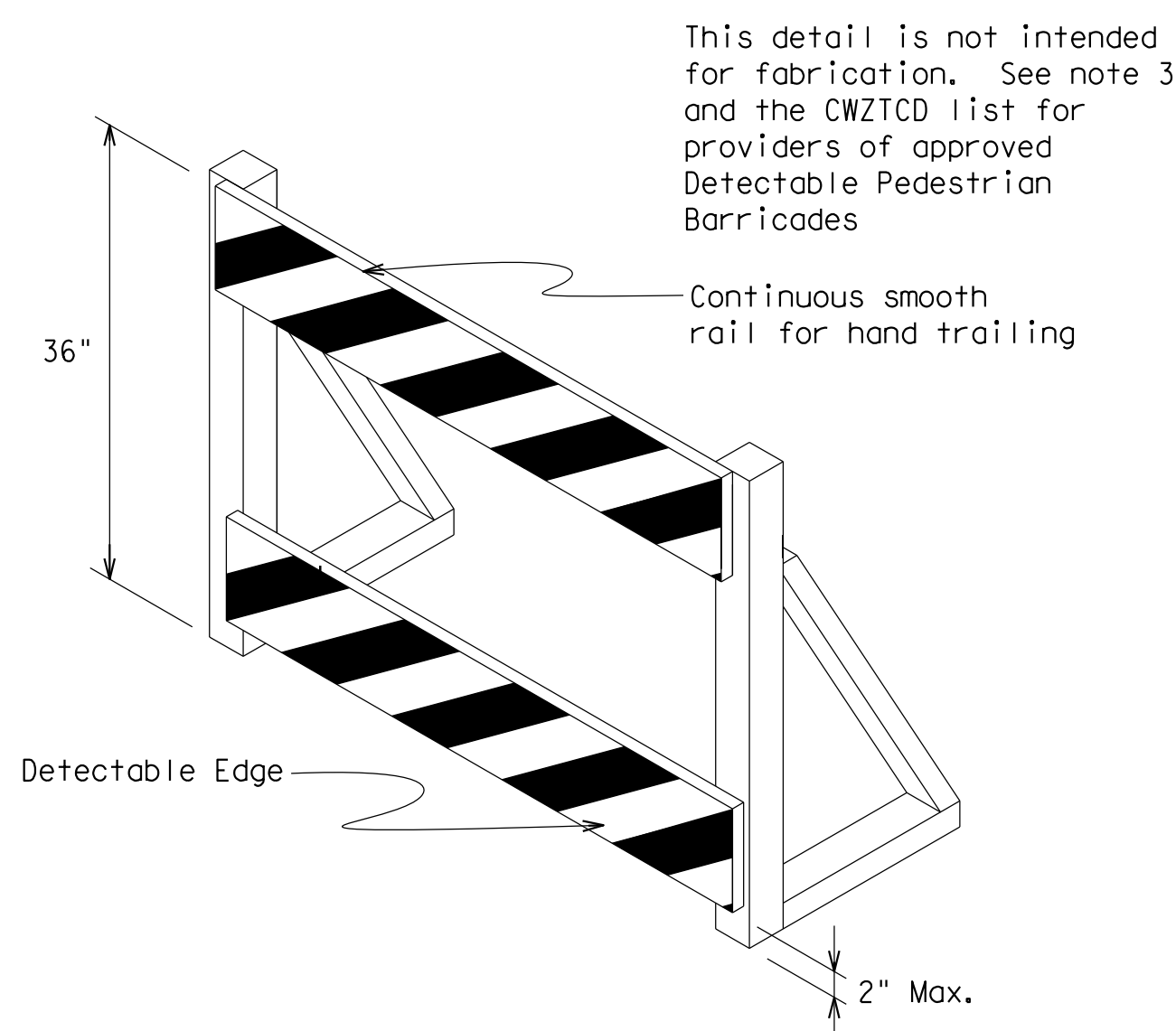
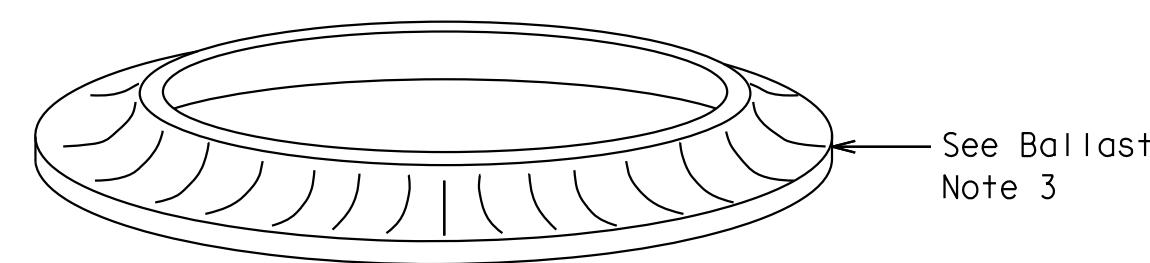
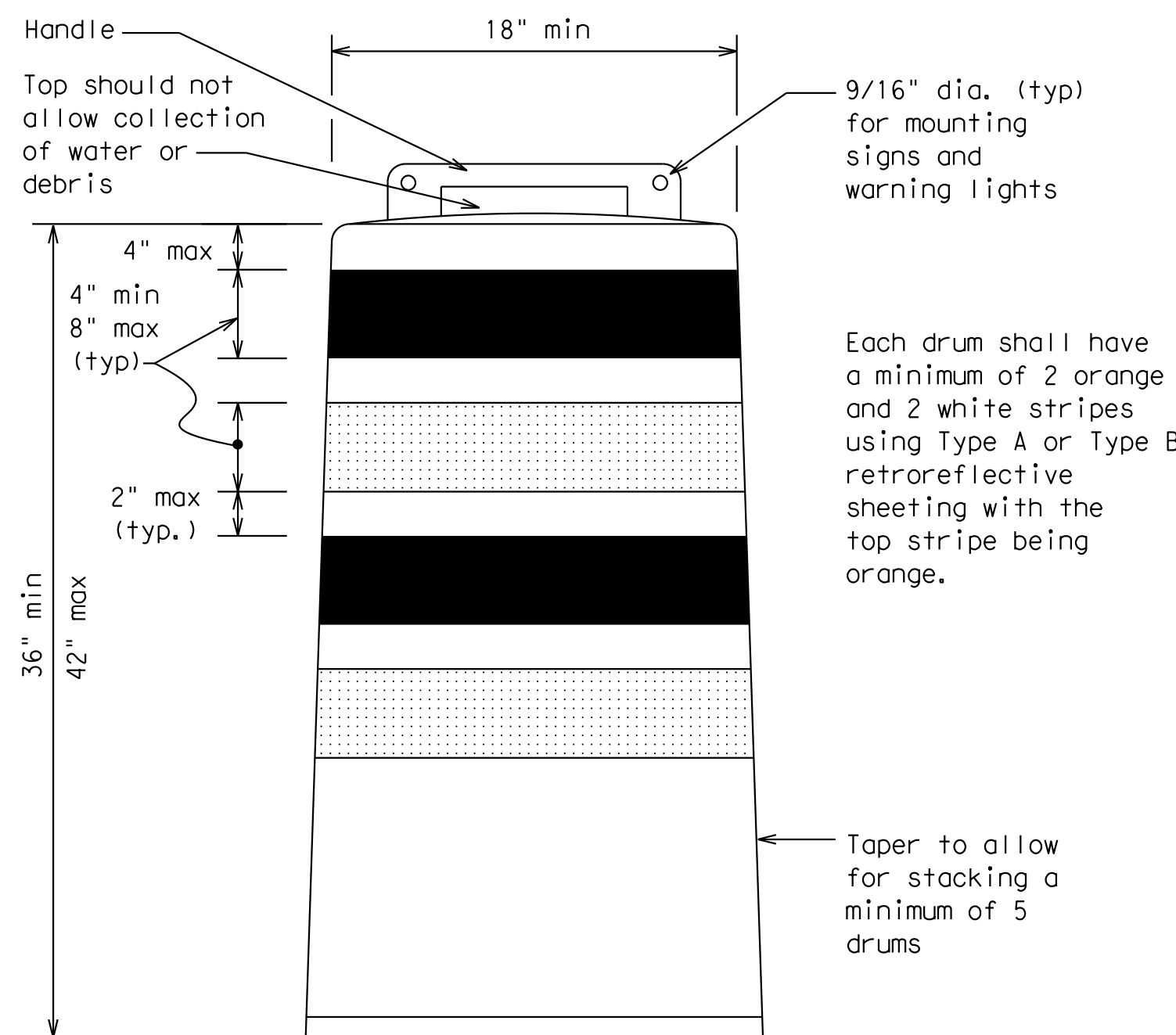
- Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
- The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
- Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
- Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
- The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
- The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
- Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
- Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
- Drum body shall have a maximum unballasted weight of 11 lbs.
- Drum and base shall be marked with manufacturer's name and model number.

RETROREFLECTIVE SHEETING

- The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A or Type B reflective sheeting shall be supplied unless otherwise specified in the plans.
- The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

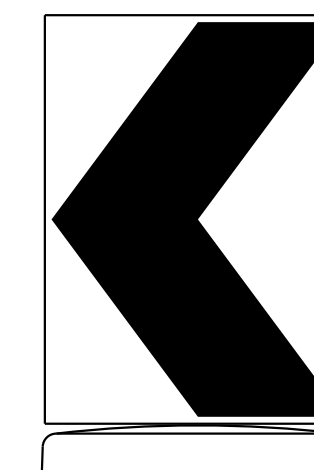
BALLAST

- Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
- Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
- Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
- The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
- When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
- Ballast shall not be placed on top of drums.
- Adhesives may be used to secure base of drums to pavement.

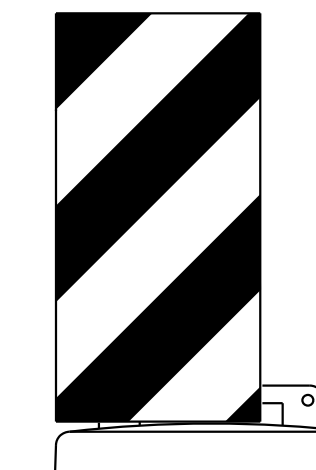


DETECTABLE PEDESTRIAN BARRICADES

- When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. Refer to WZ(BTS-2) for Pedestrian Control requirements for Sidewalk Diversions, Sidewalk Detours and Crosswalk Closures.
- Where pedestrians with visual disabilities normally use the closed sidewalk, a Detectable Pedestrian Barricade shall be placed across the full width of the closed sidewalk instead of a Type 3 Barricade.
- Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
- Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines (ADAAG)" and should not be used as a control for pedestrian movements.
- Warning lights shall not be attached to detectable pedestrian barricades.
- Detectable pedestrian barricades should use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer



12" x 24" Vertical Panel
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

- Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
- Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
- Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A or Type B. Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
- Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
- Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
- Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
- Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations, they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
- R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

SHEET 8 OF 12



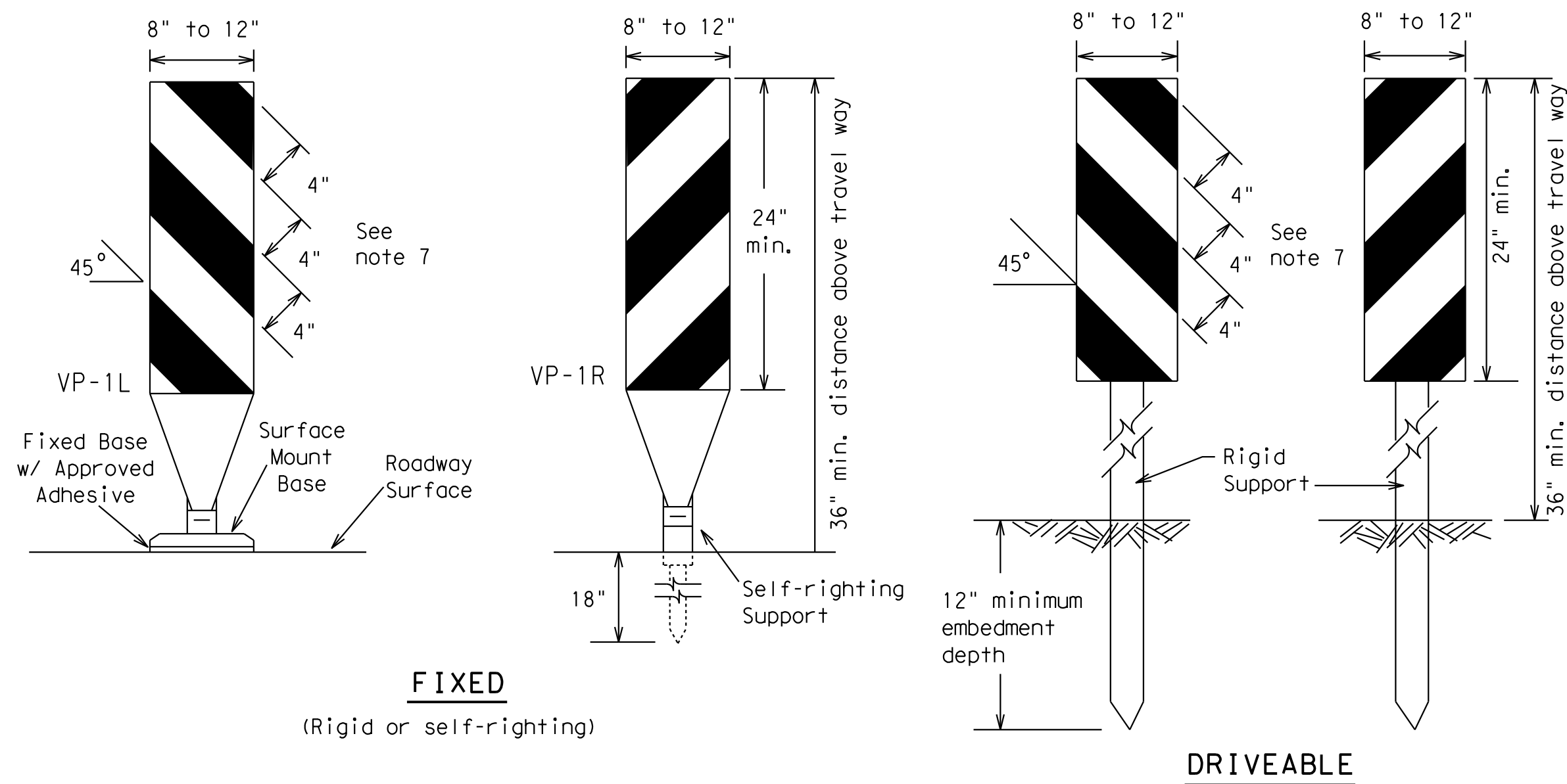
BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (8) - 21

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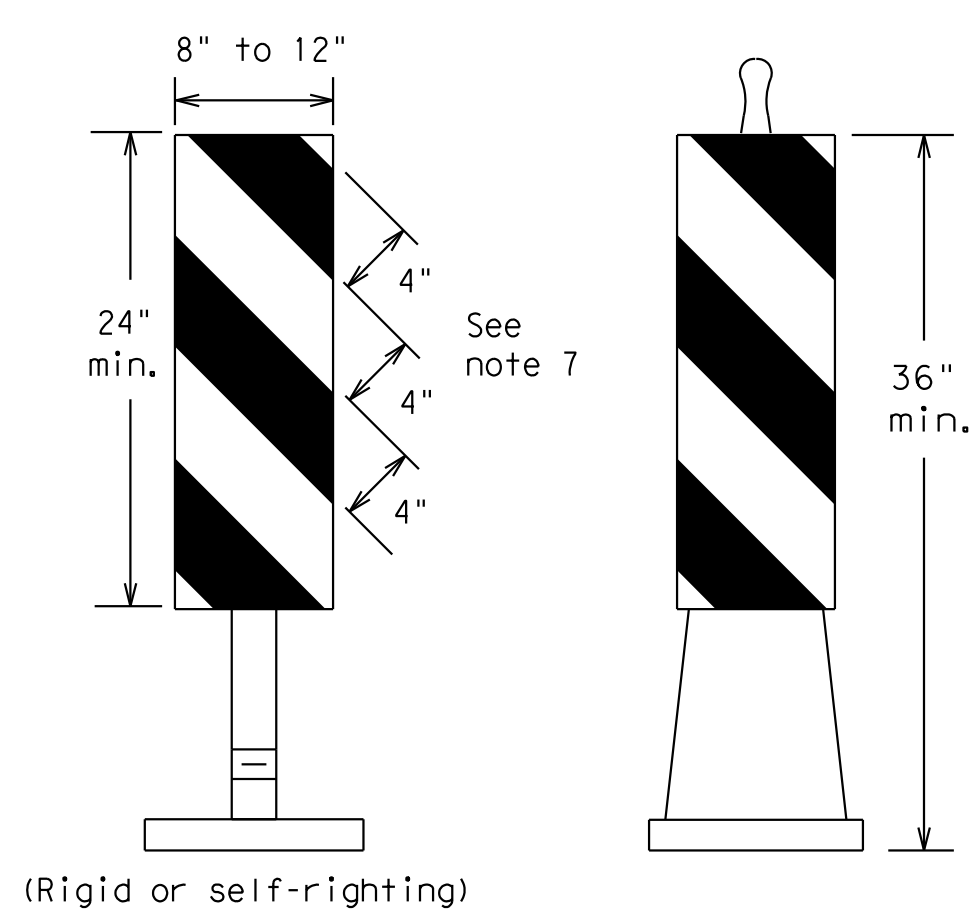
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FIXED
(Rigid or self-righting)

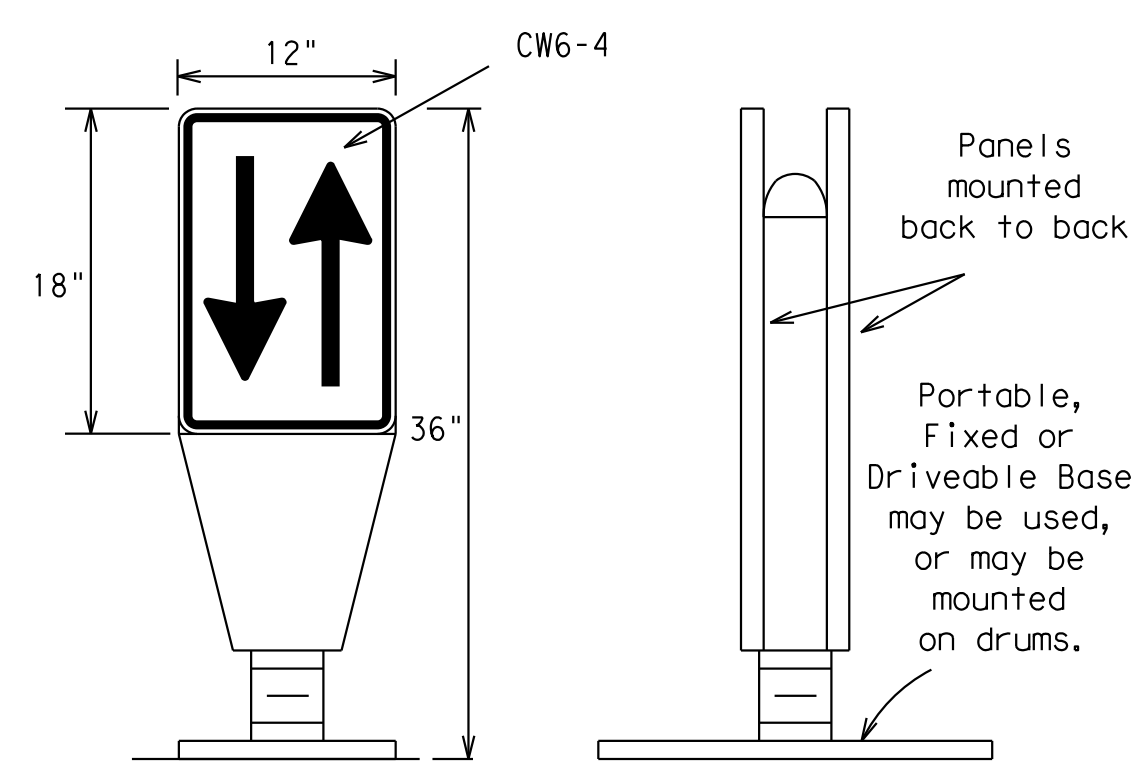
DRIVEABLE



PORTABLE

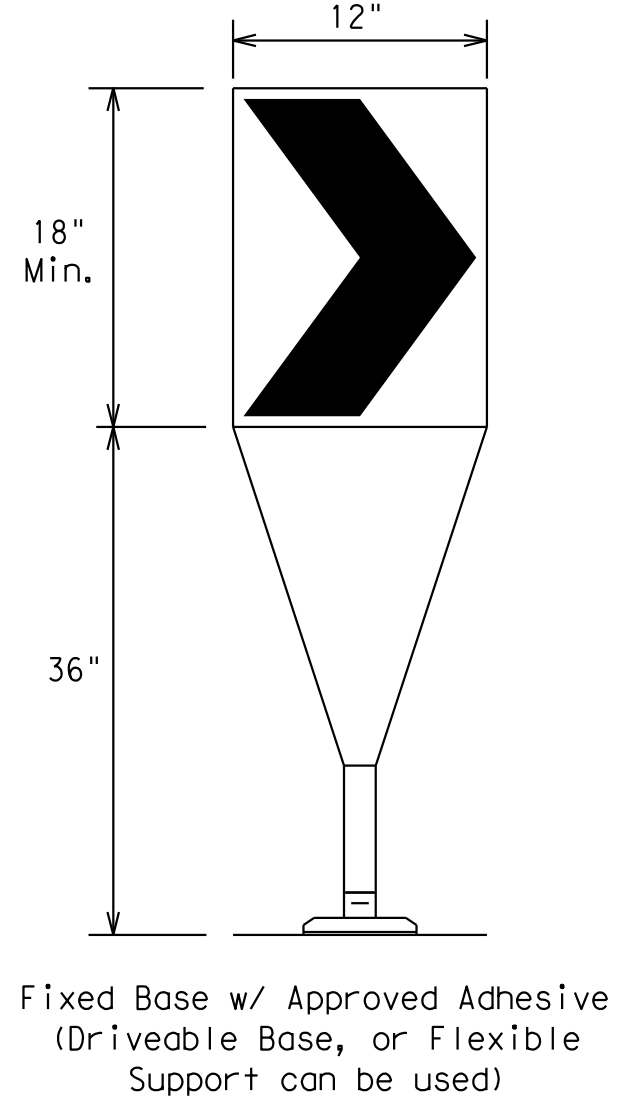
VERTICAL PANELS (VPs)

- Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
- VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use VP's for drop-offs.
- VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
- VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
- Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Sheeting for the VP's shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
- Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.



OPPOSING TRAFFIC LANE DIVIDERS (OTLD)

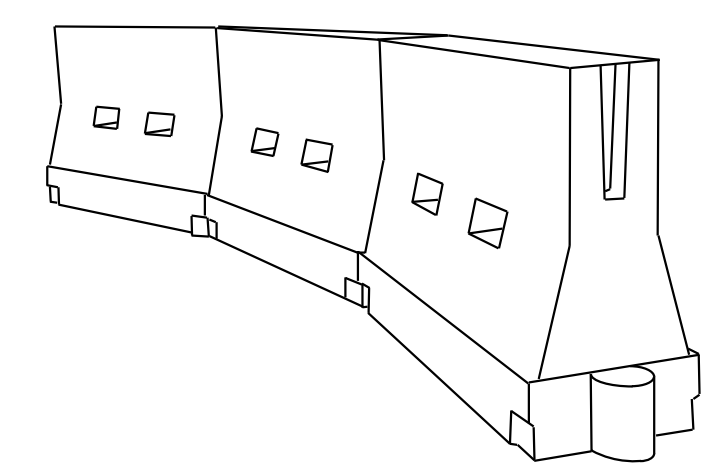
- Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
- The OTLD may be used in combination with 42" cones or VPs.
- Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
- The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.



Fixed Base w/ Approved Adhesive (Driveable Base, or Flexible Support can be used)

- The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
- Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
- Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
- To be effective, the chevron should be visible for at least 500 feet.
- Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
- For Long Term Stationary use on tapers or transitions on freeways and divided highways, self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS



LONGITUDINAL CHANNELIZING DEVICES (LCD)

- LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
- LCDs may be used instead of a line of cones or drums.
- LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
- LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
- LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10). Place reflective sheeting near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (MASH) crashworthiness requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

GENERAL NOTES

- Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
- Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
- Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
- Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
- The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

Posted Speed	Formula	Minimum Desirable Taper Lengths * X			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	L = WS ² / 60	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70	700'	770'	840'	70'	140'	
75	750'	825'	900'	75'	150'	
80	800'	880'	960'	80'	160'	

*X Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

SHEET 9 OF 12



BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (9) - 21

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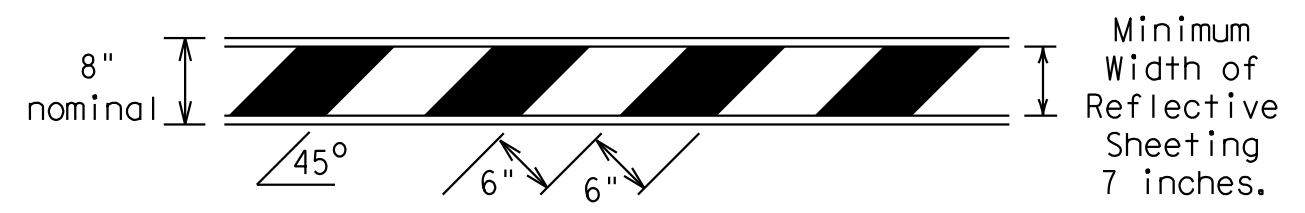
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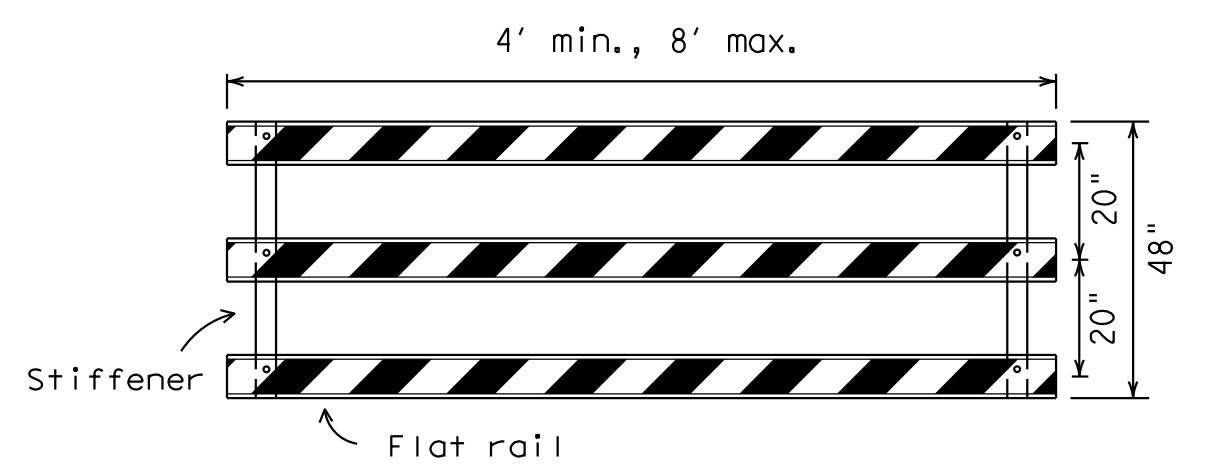
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road, striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.



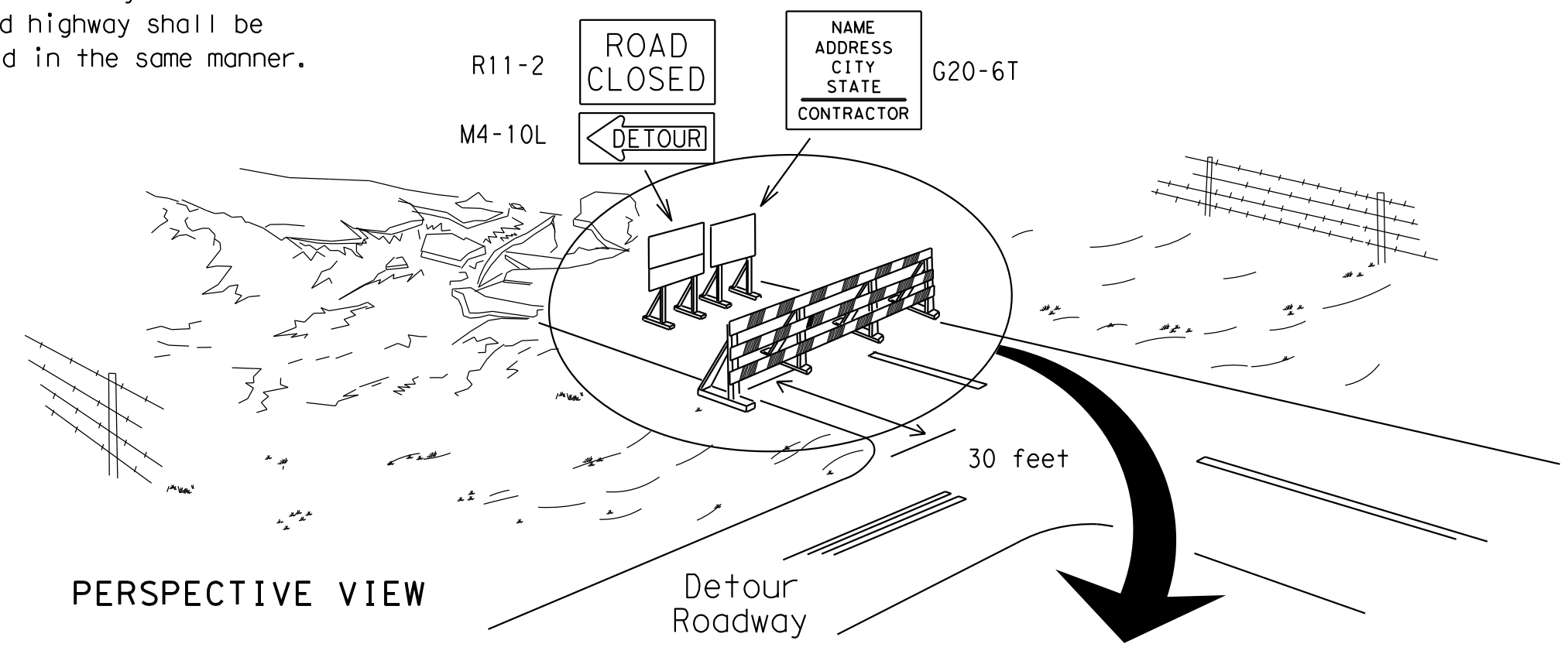
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

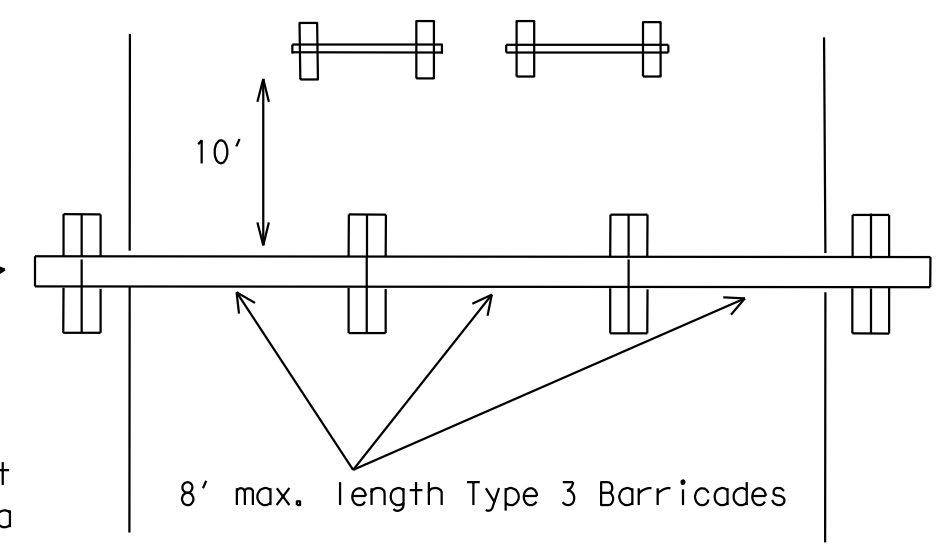
TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

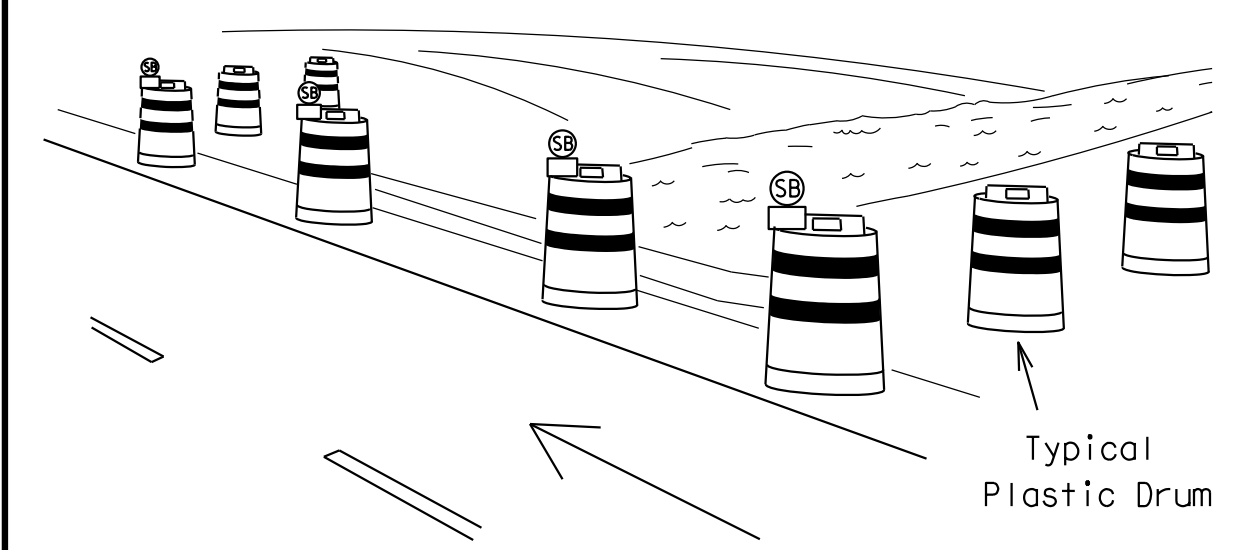
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.



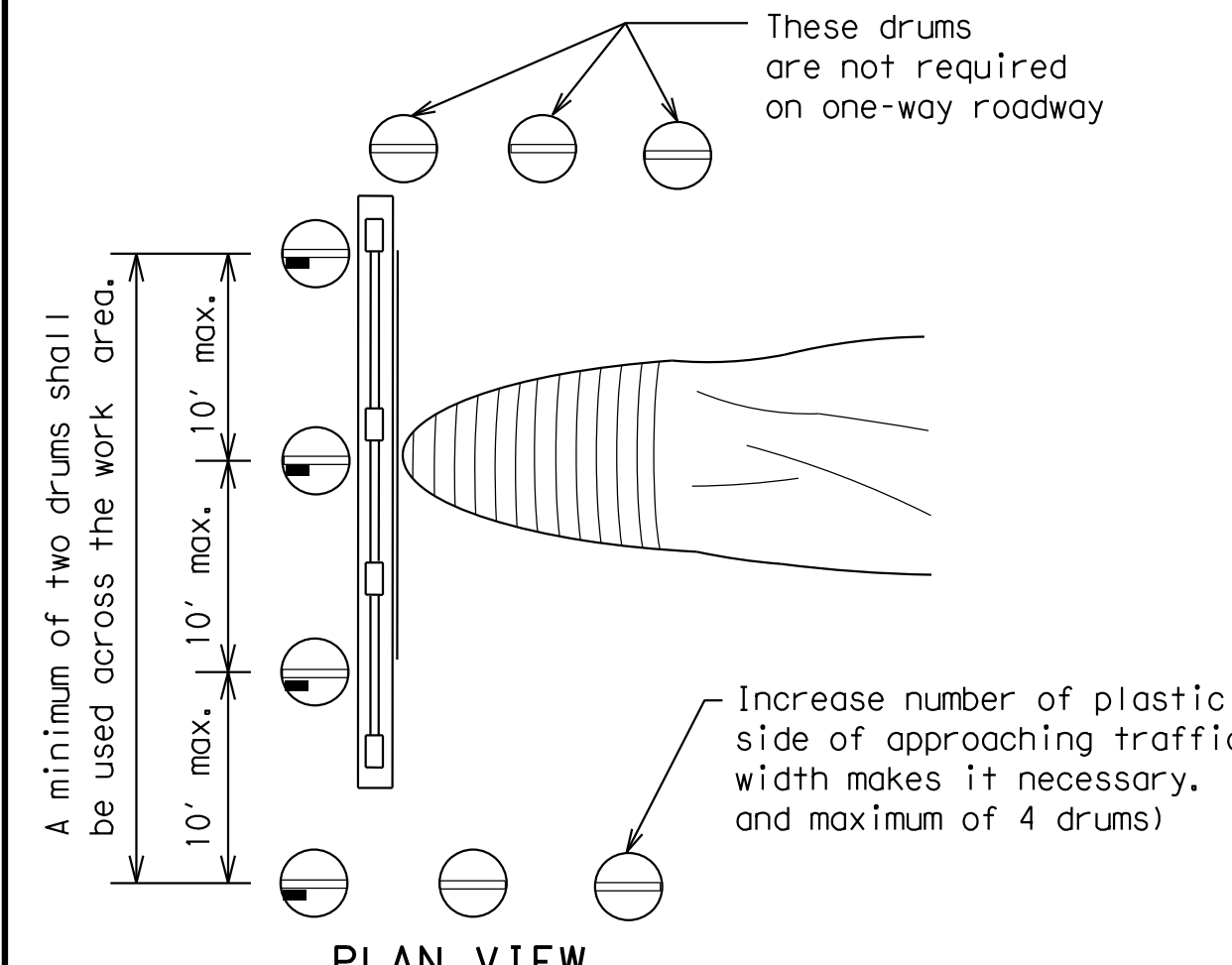
PLAN VIEW

1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

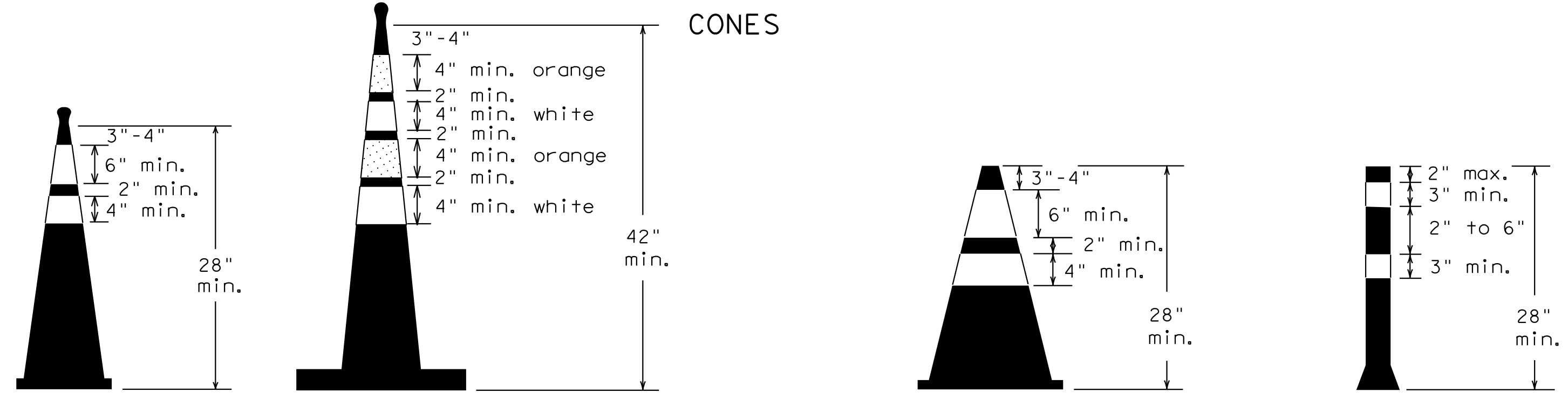


PLAN VIEW

1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



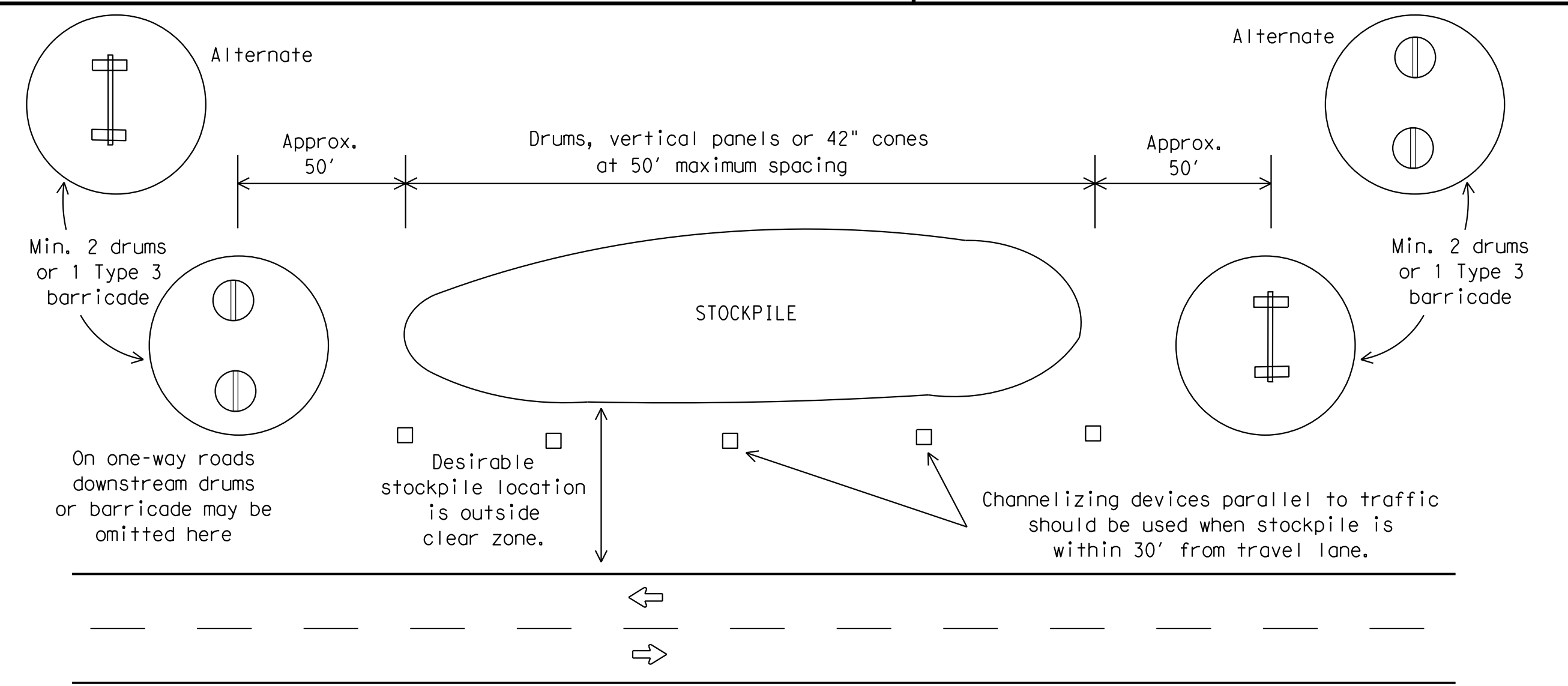
Two-Piece cones

One-Piece cones

Tubular Marker

28" Cones shall have a minimum weight of 9 1/2 lbs.
42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A or Type B.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.



TRAFFIC CONTROL FOR MATERIAL STOCKPILES



BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (10) - 21

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9-07 8-14				
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DIST	COUNTY	SHEET NO.		
		90		

DATE: FILE:

WORK ZONE PAVEMENT MARKINGS

GENERAL

- The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
- Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- Additional supplemental pavement marking details may be found in the plans or specifications.
- Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
- When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
- When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
- All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

- Raised pavement markers are to be placed according to the patterns on BC(12).
- All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

- Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
- Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

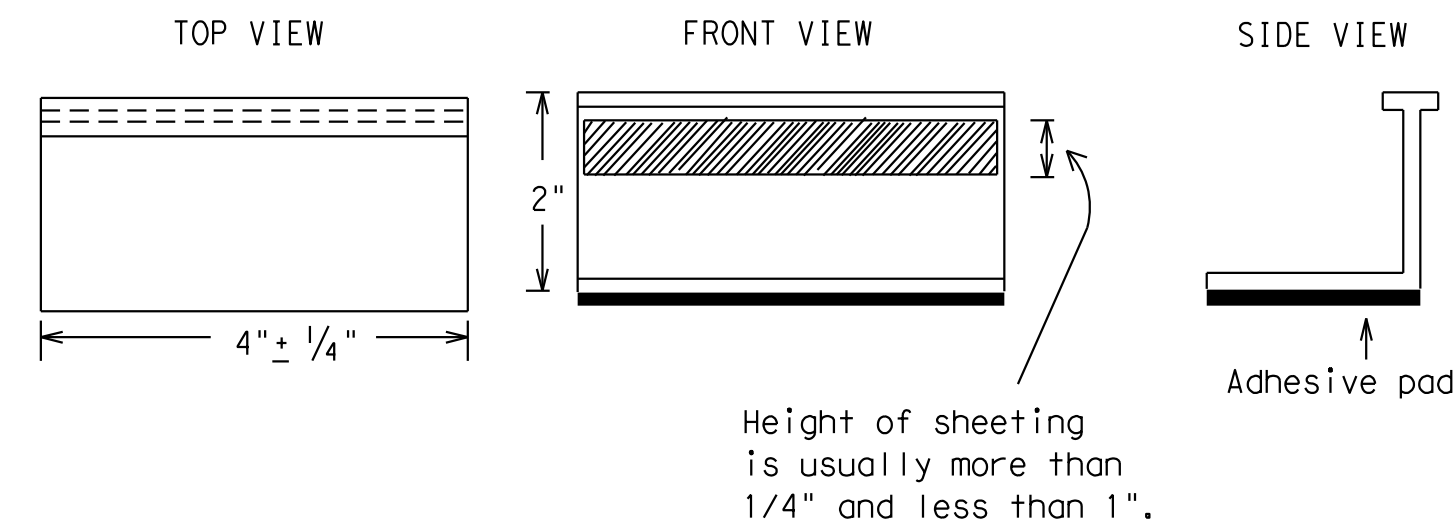
MAINTAINING WORK ZONE PAVEMENT MARKINGS

- The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
- Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
- The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
- Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

- Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
- The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
- Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
- The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
- Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
- Blast cleaning may be used but will not be required unless specifically shown in the plans.
- Over-painting of the markings SHALL NOT BE permitted.
- Removal of raised pavement markers shall be as directed by the Engineer.
- Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
- Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



**STAPLES OR NAILS SHALL NOT BE USED TO SECURE
TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER
TABS TO THE PAVEMENT SURFACE**

- Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
- Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
 - Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
 - Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
- Small design variances may be noted between tab manufacturers.
- See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

- Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
- All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
- Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
 YELLOW - (two amber reflective surfaces with yellow body).
 WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

SHEET 11 OF 12



BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

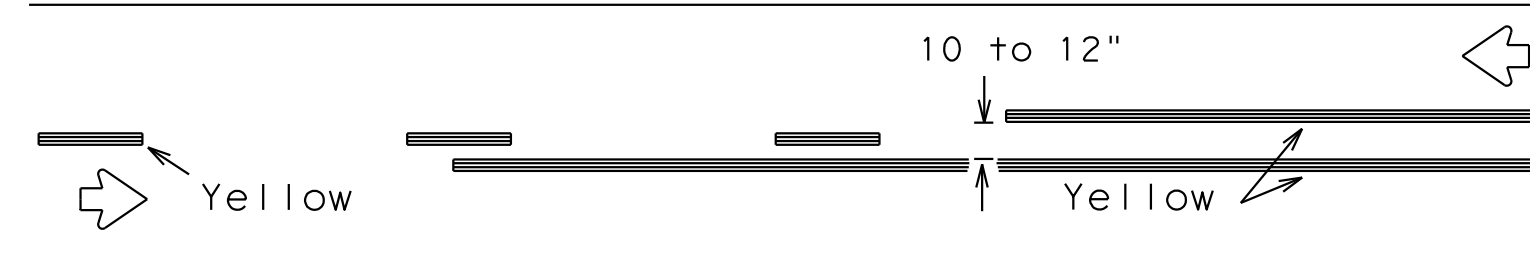
BC(11) - 21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS				
2-98	9-07	5-21		
1-02	7-13			
11-02	8-14			
			DIST	SHEET NO.
			COUNTY	91

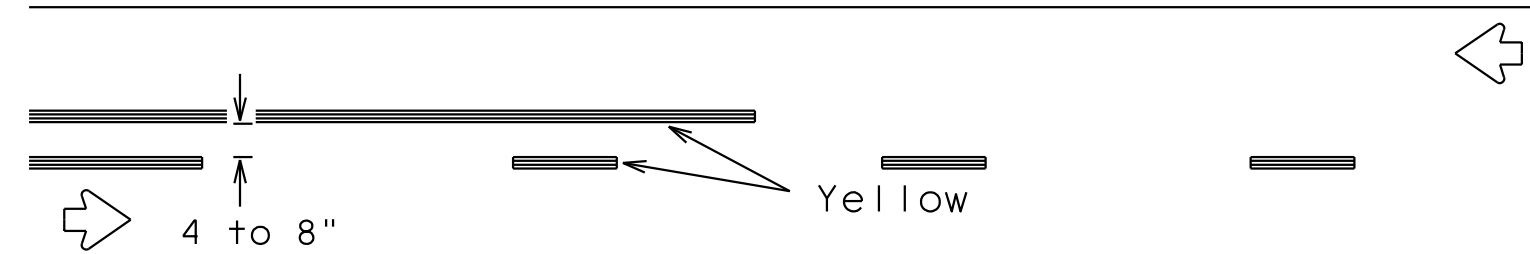
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PAVEMENT MARKING PATTERNS

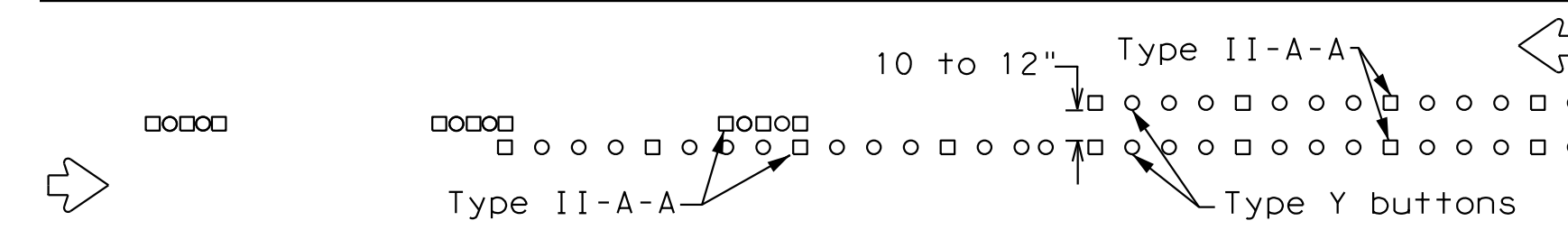


REFLECTORIZED PAVEMENT MARKINGS - PATTERN A

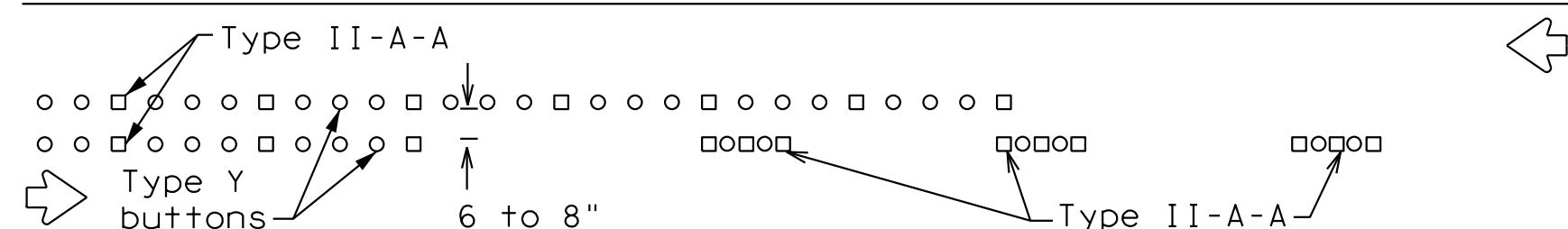


REFLECTORIZED PAVEMENT MARKINGS - PATTERN B

Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer. Prefabricated markings may be substituted for reflectorized pavement markings.

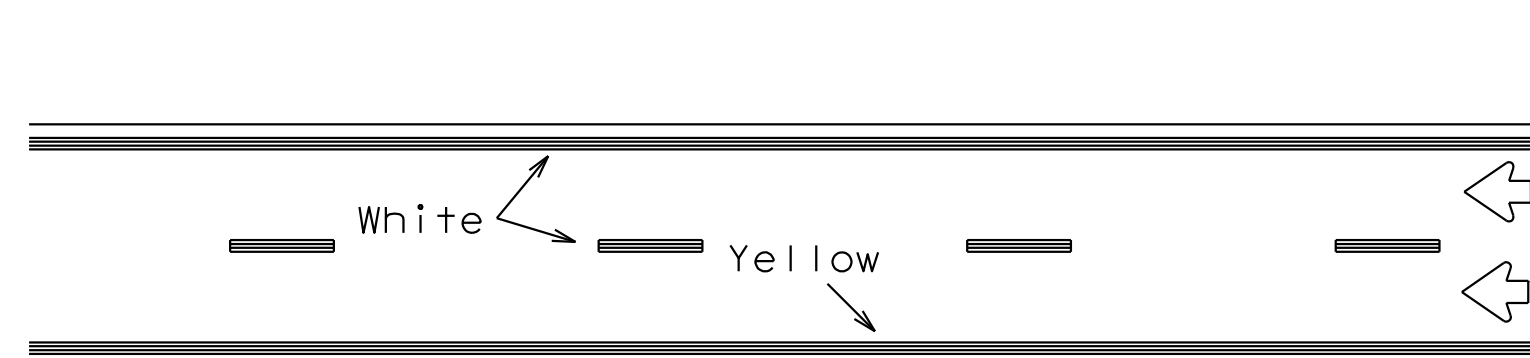


RAISED PAVEMENT MARKERS - PATTERN A



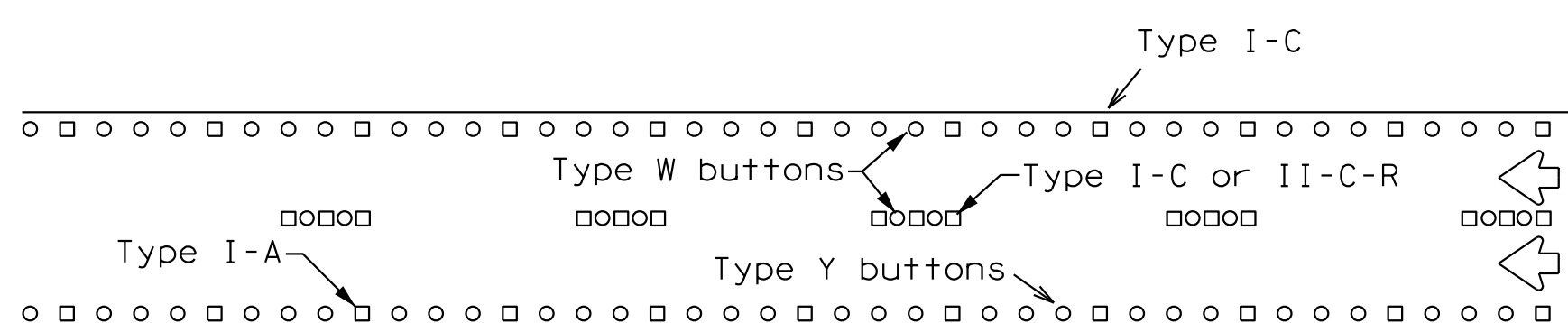
RAISED PAVEMENT MARKERS - PATTERN B

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



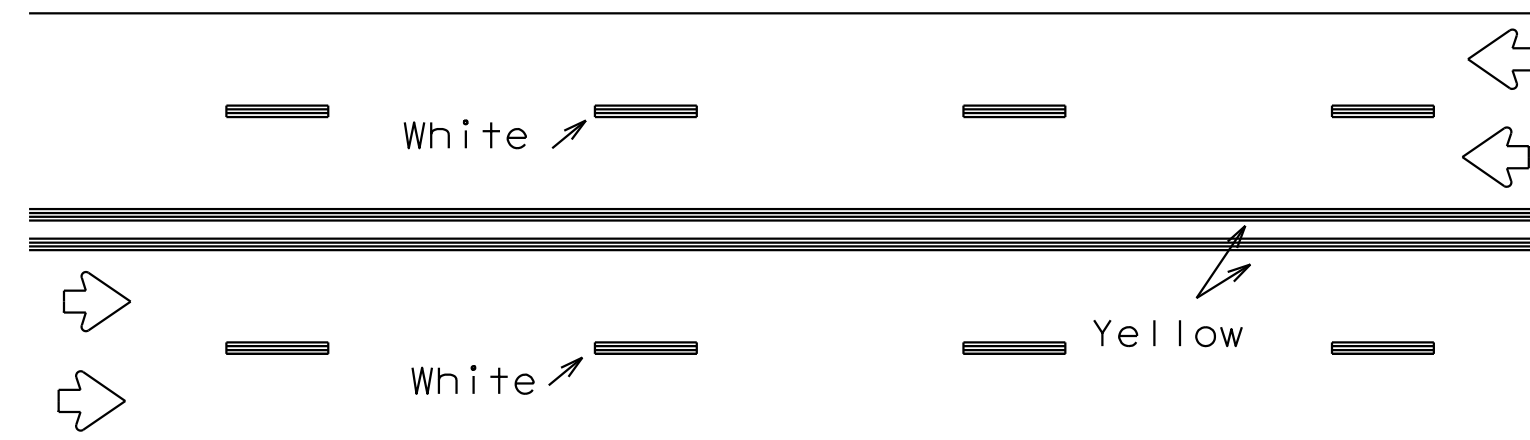
REFLECTORIZED PAVEMENT MARKINGS

Prefabricated markings may be substituted for reflectorized pavement markings.



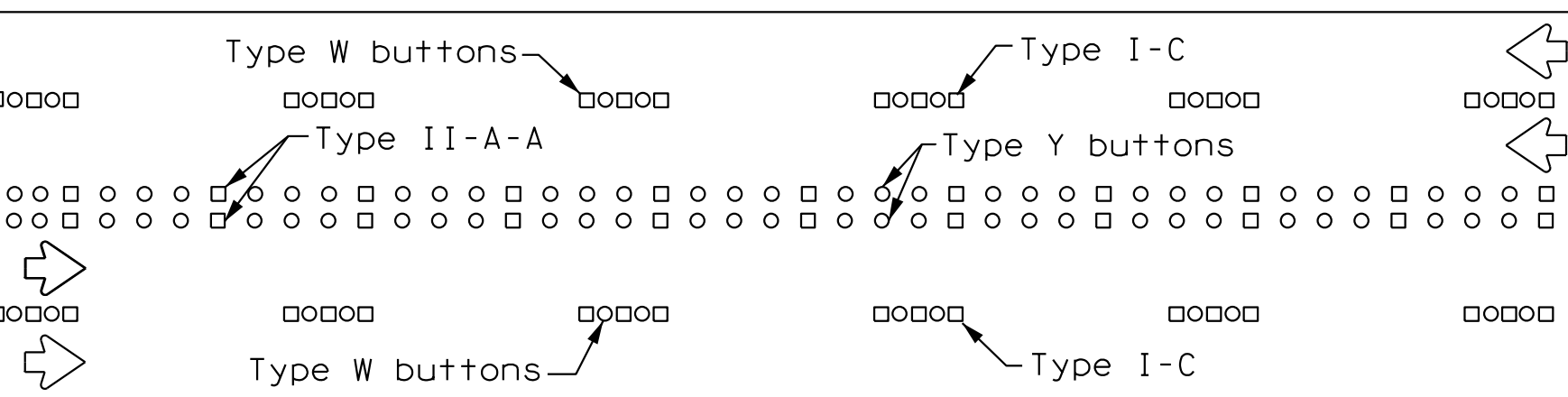
RAISED PAVEMENT MARKERS

EDGE & LANE LINES FOR DIVIDED HIGHWAY



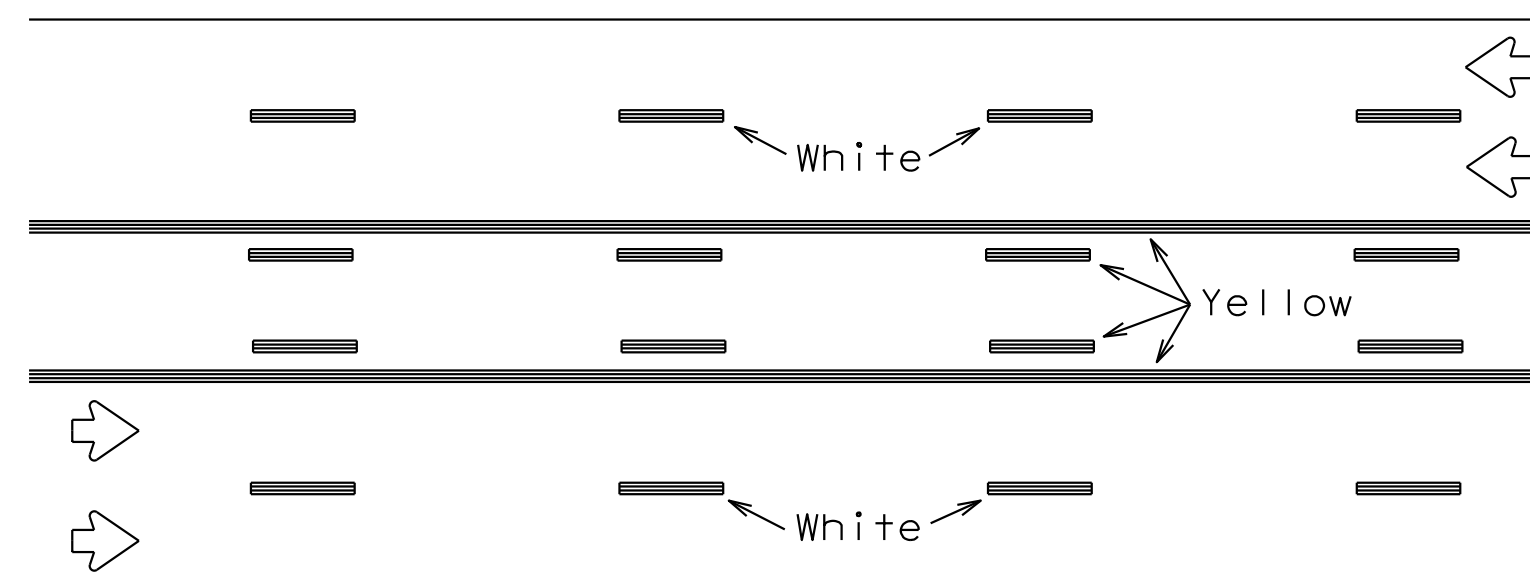
REFLECTORIZED PAVEMENT MARKINGS

Prefabricated markings may be substituted for reflectorized pavement markings.



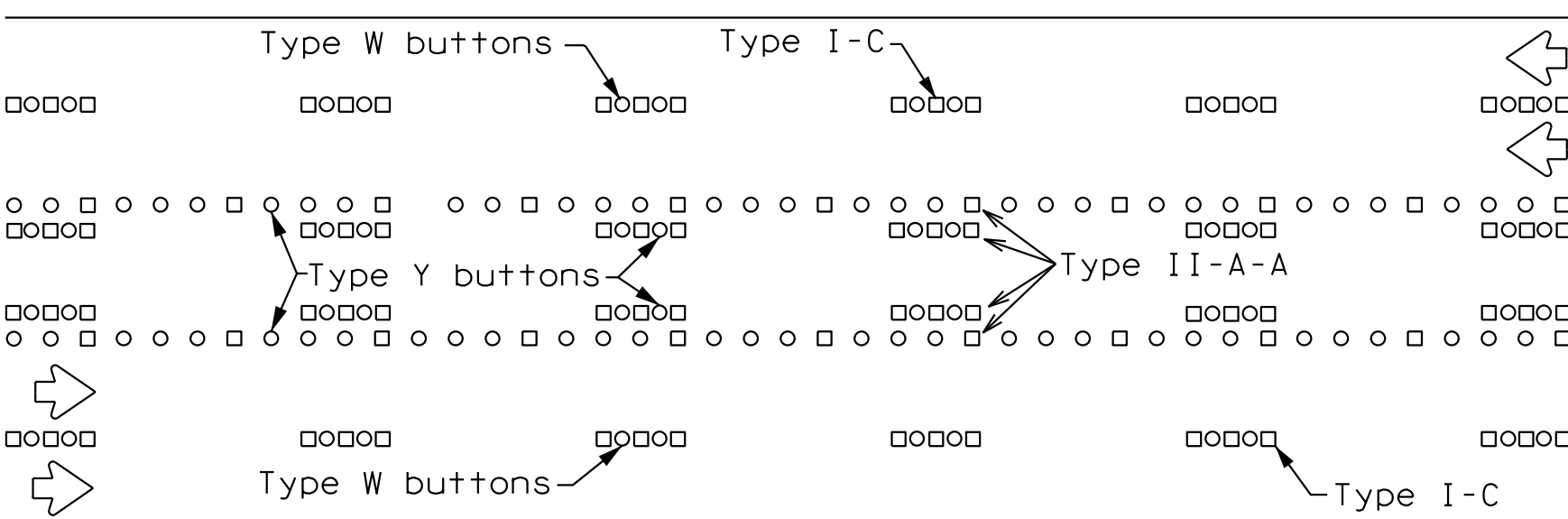
RAISED PAVEMENT MARKERS

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS

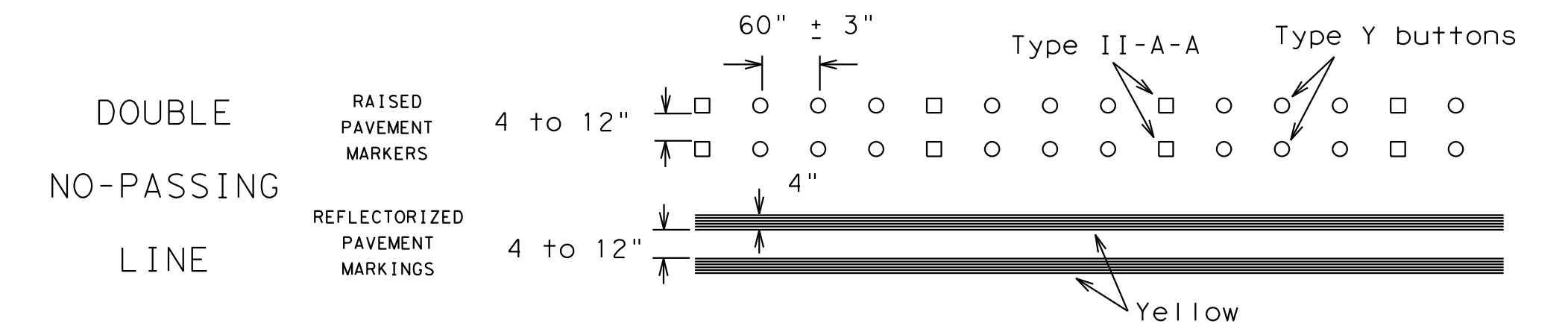
Prefabricated markings may be substituted for reflectorized pavement markings.



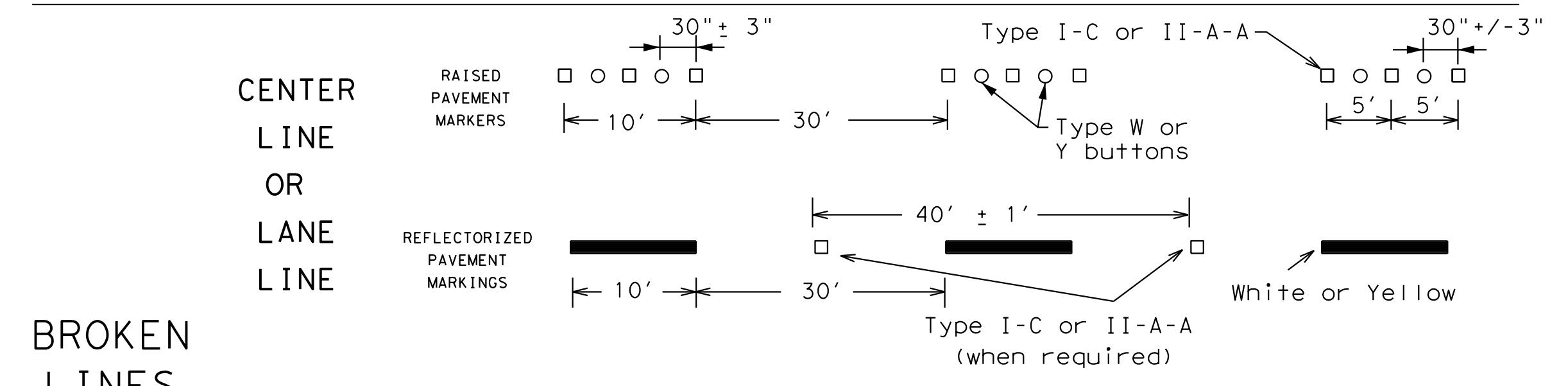
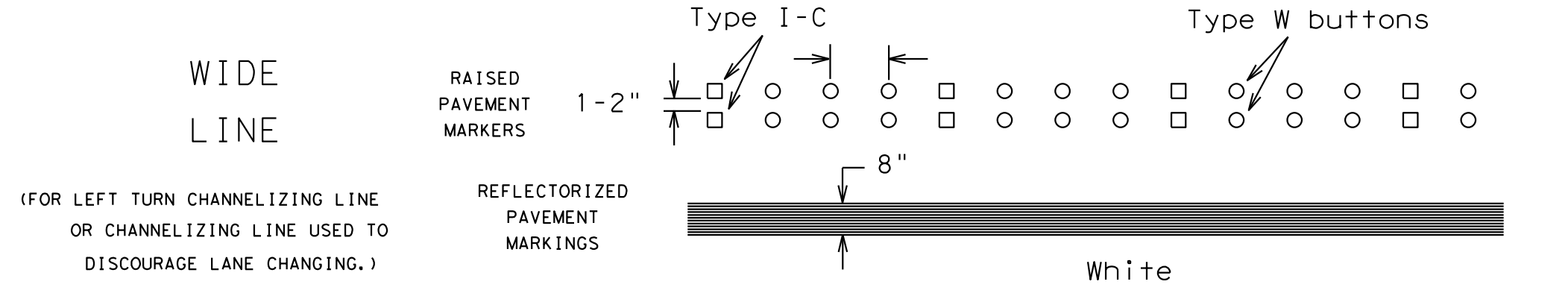
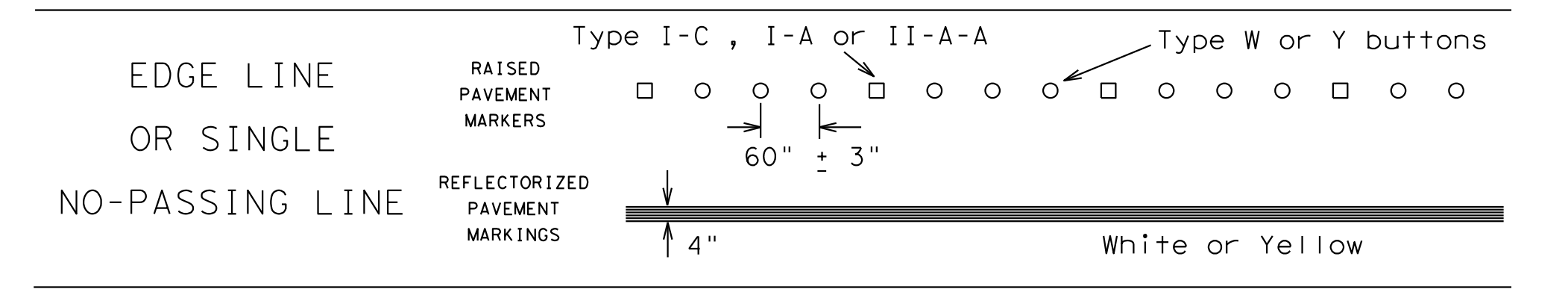
RAISED PAVEMENT MARKERS

TWO-WAY LEFT TURN LANE

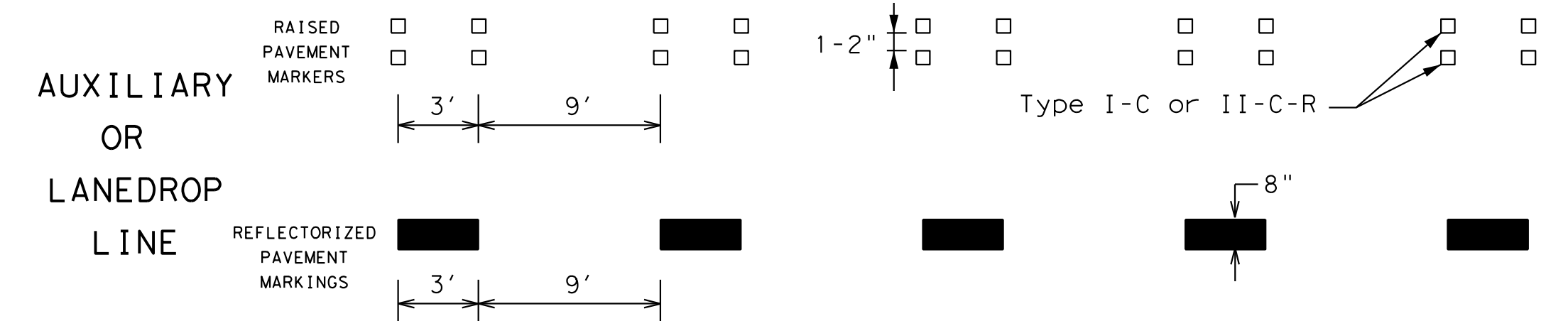
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS



SOLID LINES

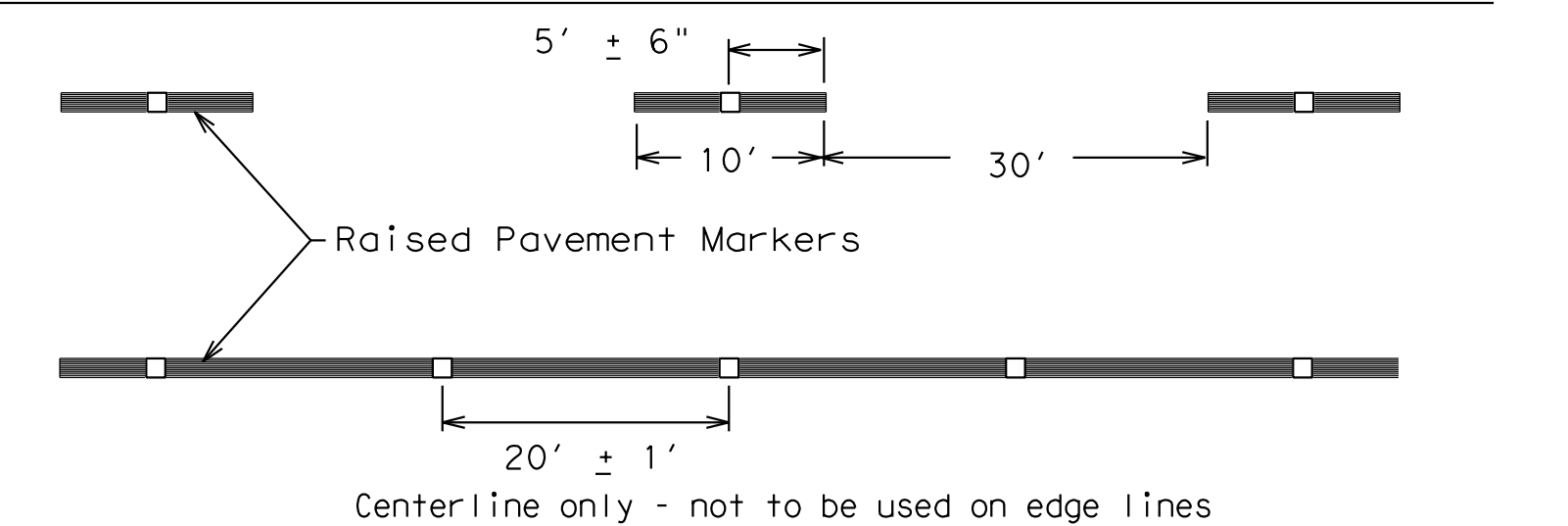


BROKEN LINES



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



SHEET 12 OF 12



BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

BC (12) - 21

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

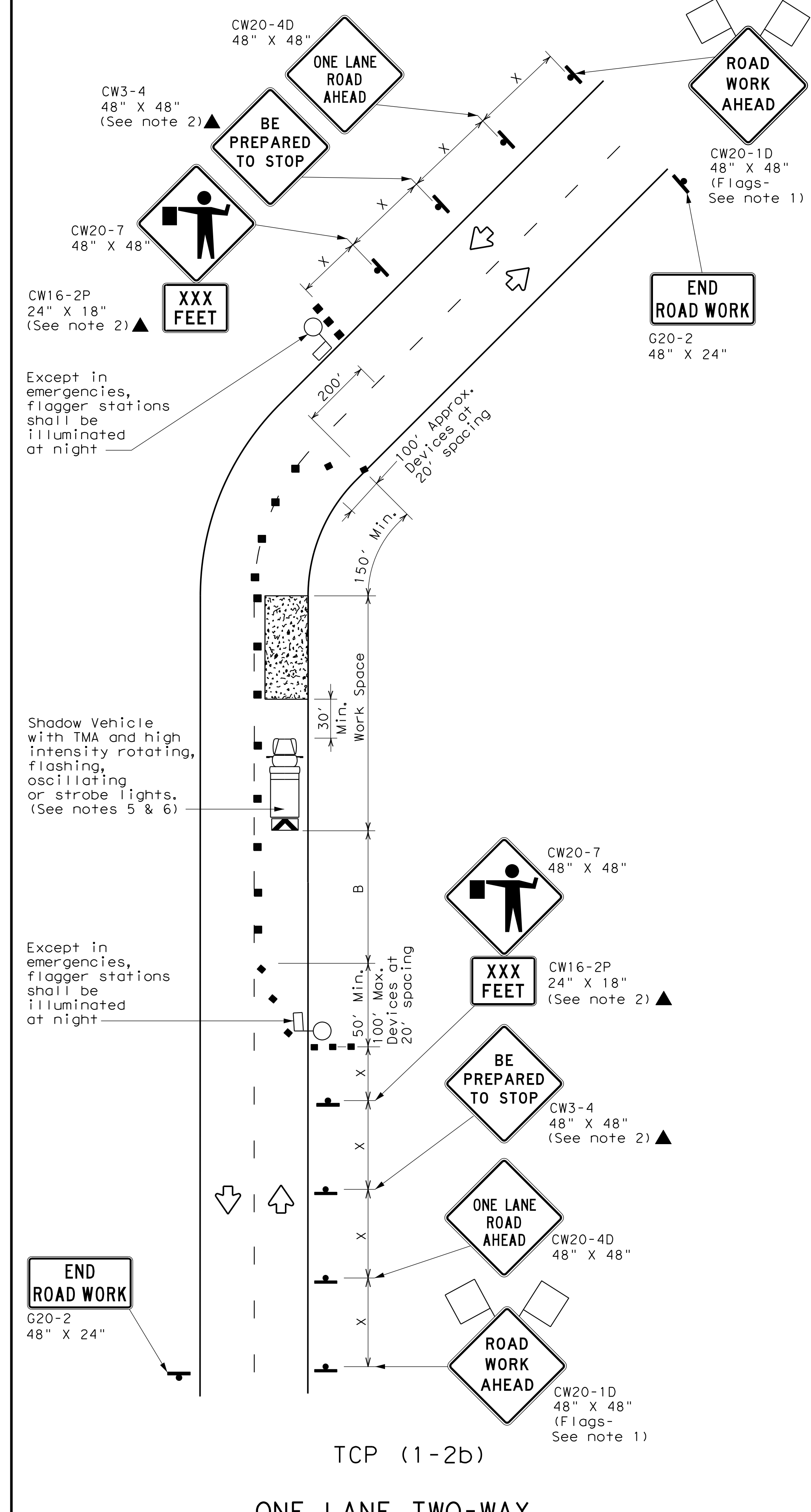
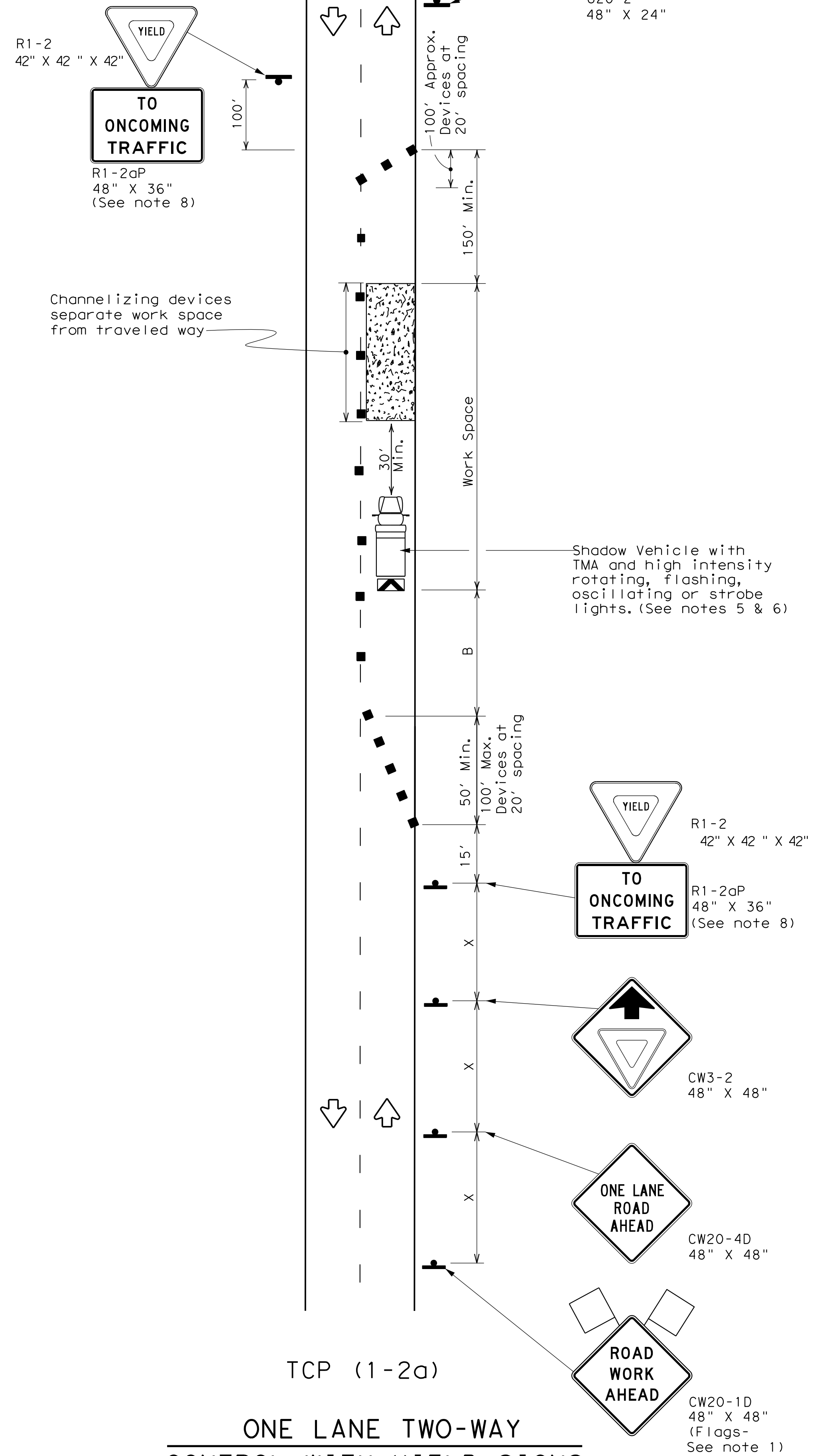
FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS				
1-97 9-07 5-21				
2-98 7-13				
11-02 8-14				
DIST	COUNTY	SHEET NO.		92

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Warning Sign Sequence in Opposite Direction Same as Below



LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed * X	Formula $L = \frac{WS^2}{60}$	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	L = WS ² / 60	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45		450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only
 ** Taper lengths have been rounded off.
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

- GENERAL NOTES**
- Flags attached to signs where shown are REQUIRED.
 - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
 - The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
 - Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
 - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
 - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- TCP (1-2a)**
- R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than one half city block. In rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
 - R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.
- TCP (1-2b)**
- Flaggers should use two-way radios or other methods of communication to control traffic.
 - Length of work space should be based on the ability of flaggers to communicate.
 - If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
 - Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
 - Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation
 Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY
TRAFFIC CONTROL

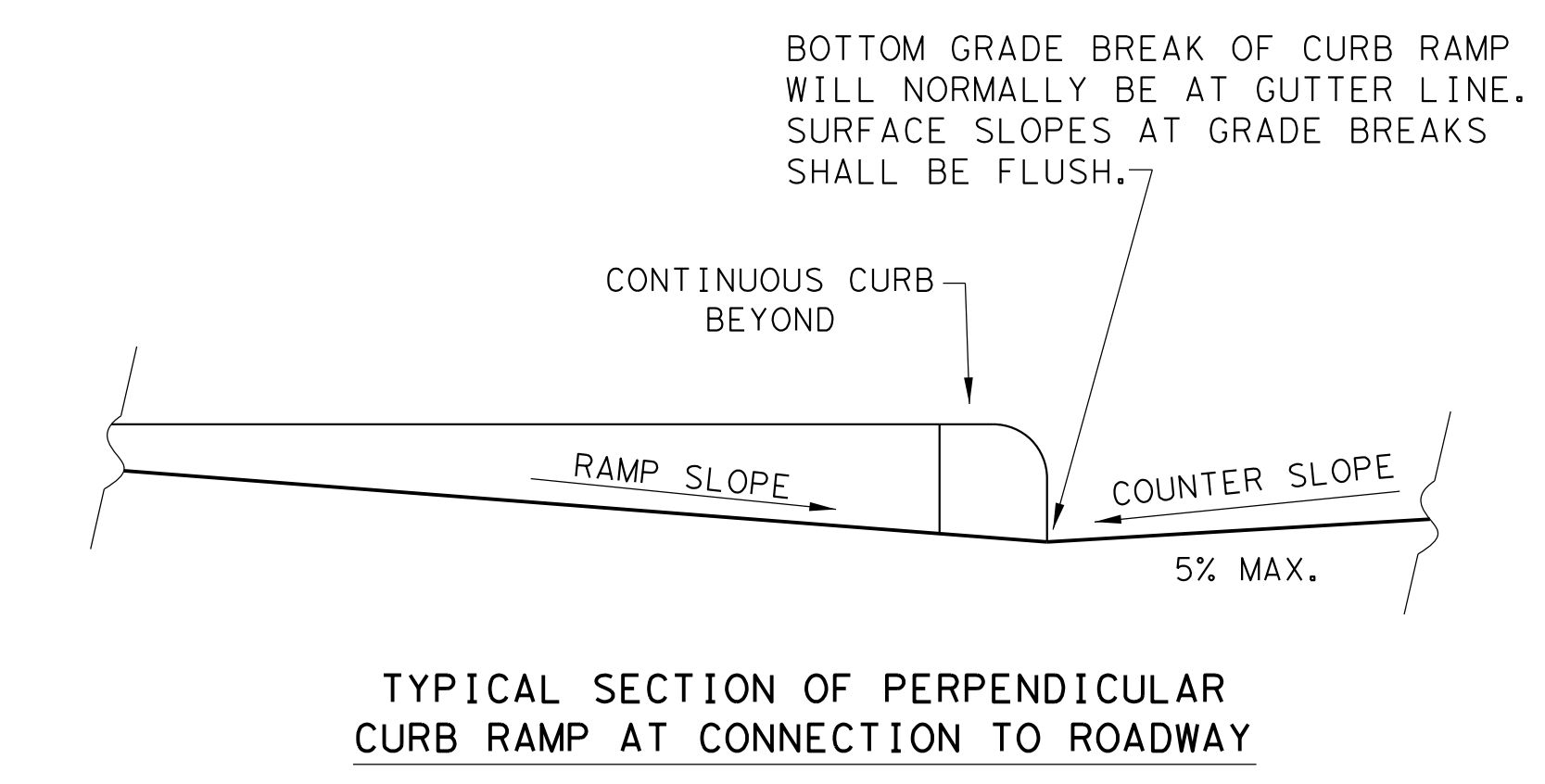
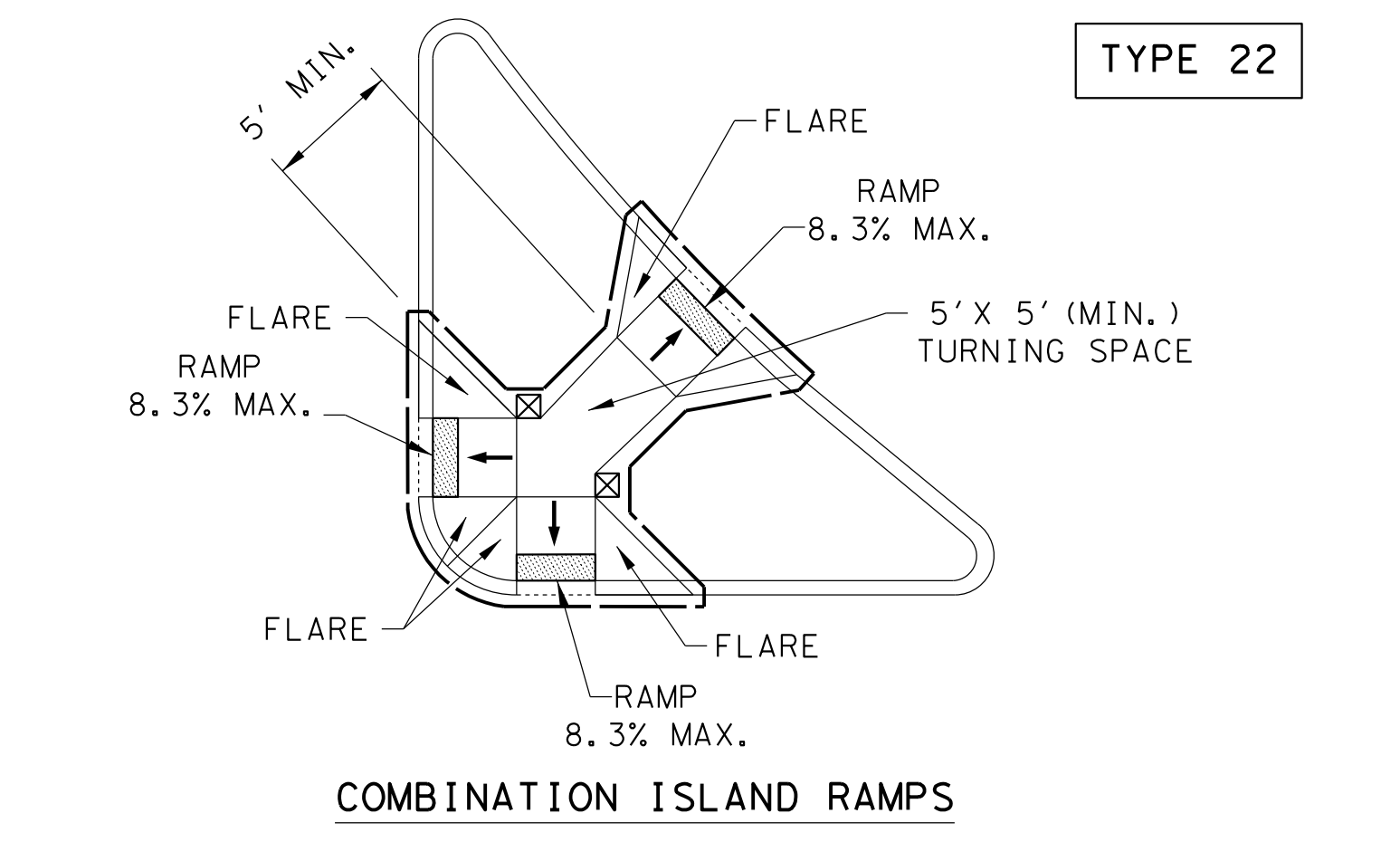
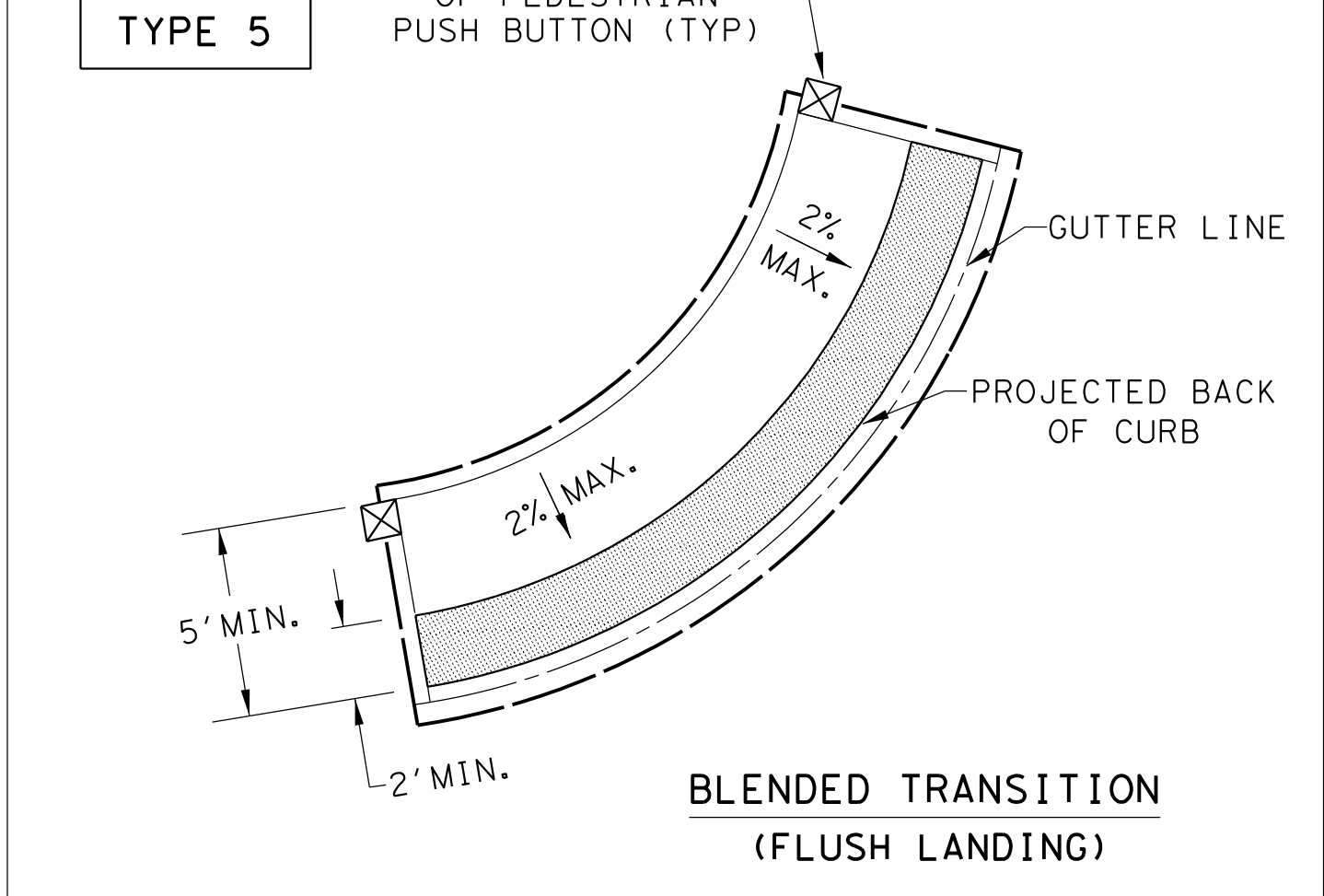
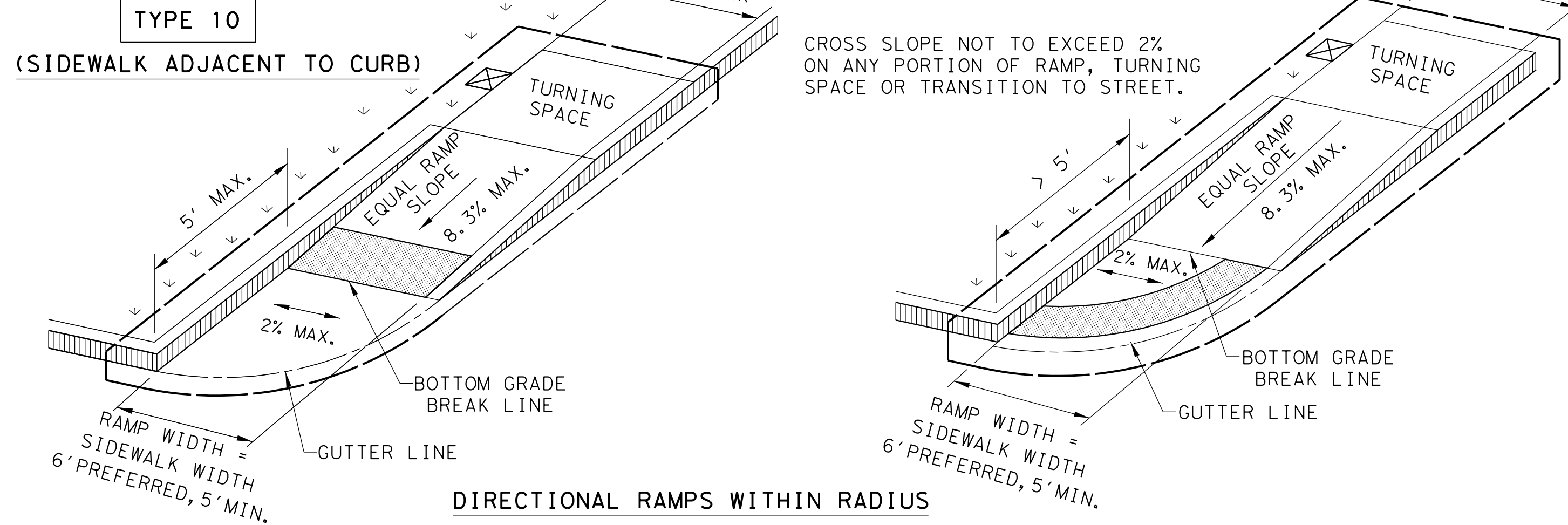
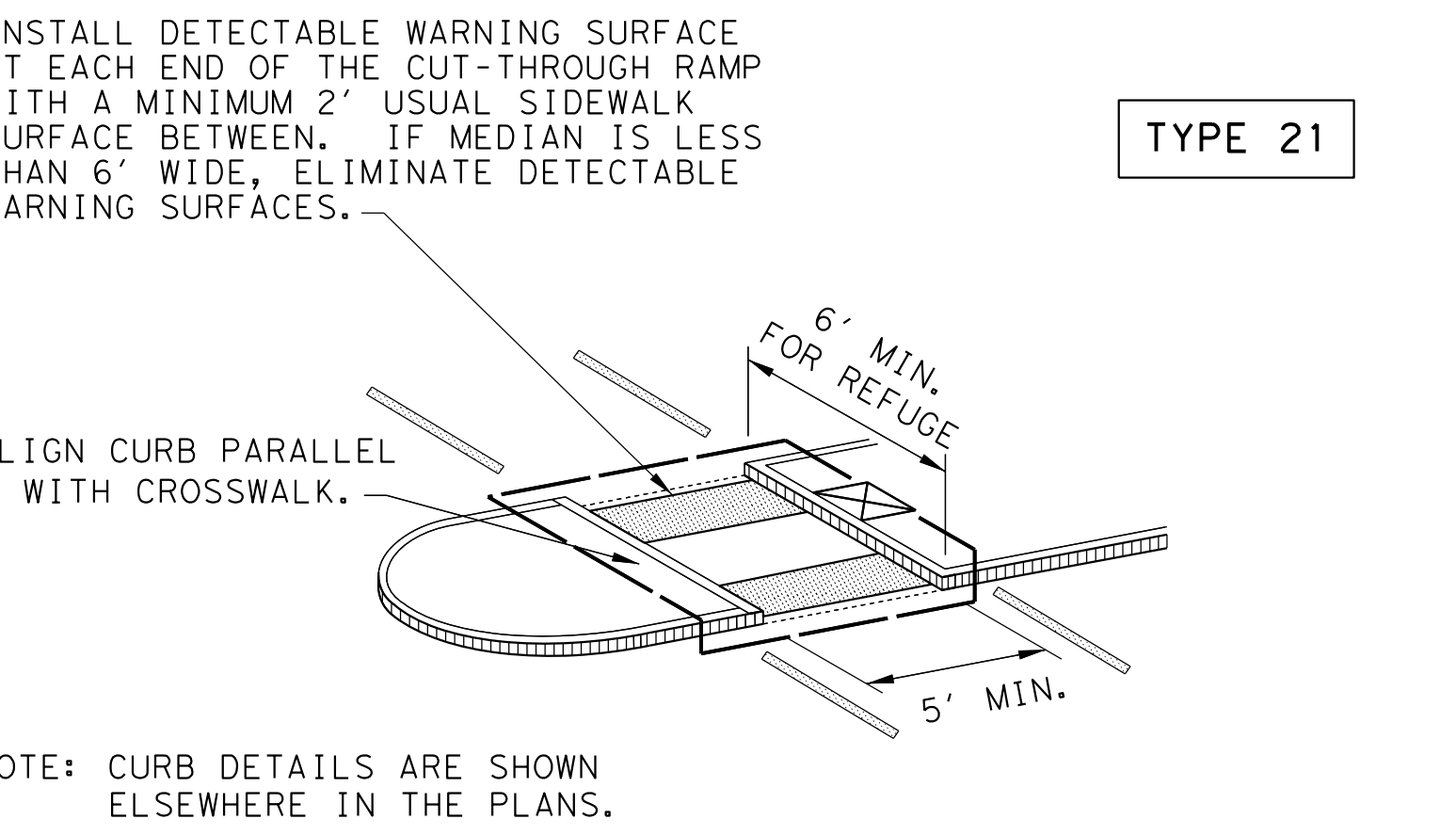
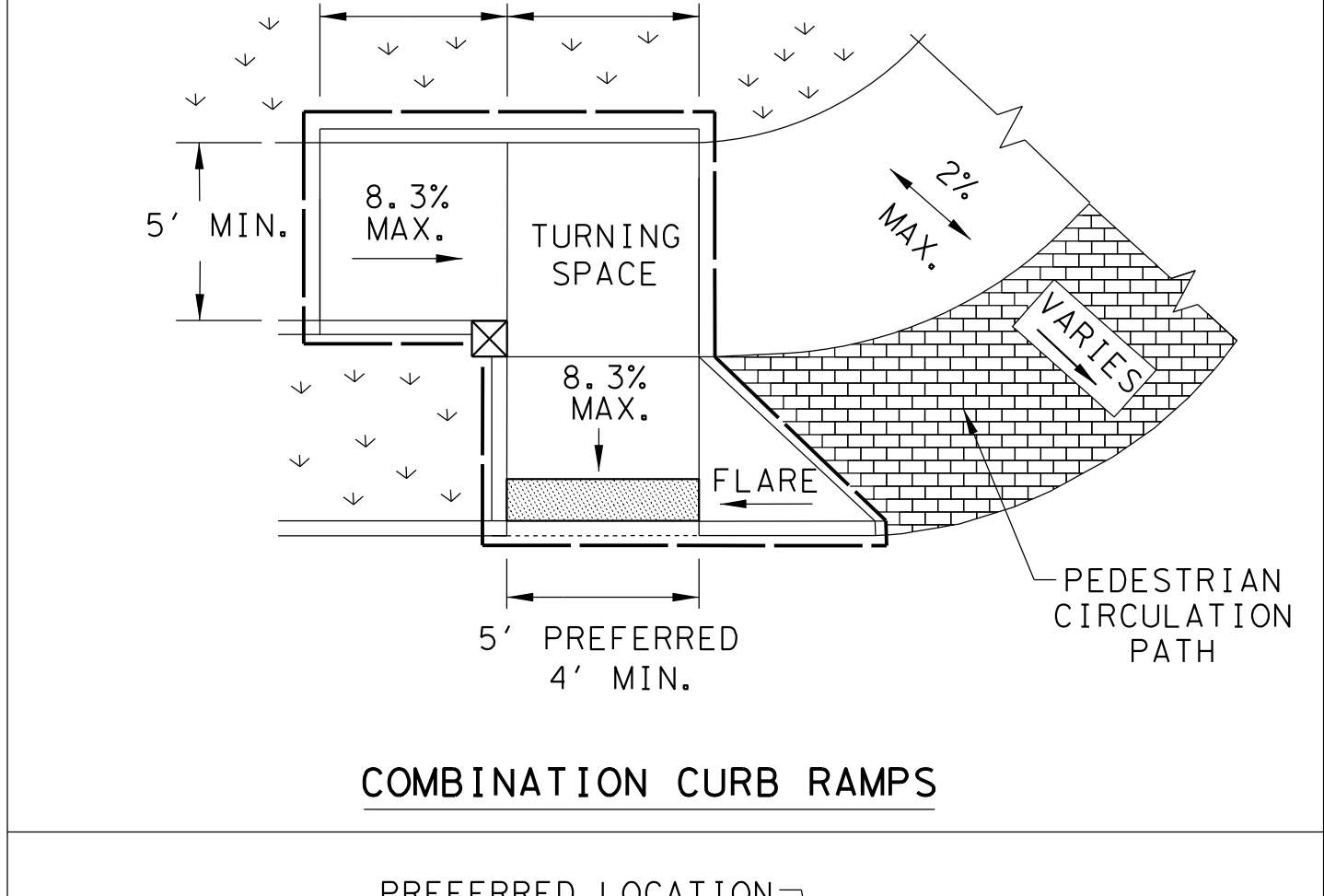
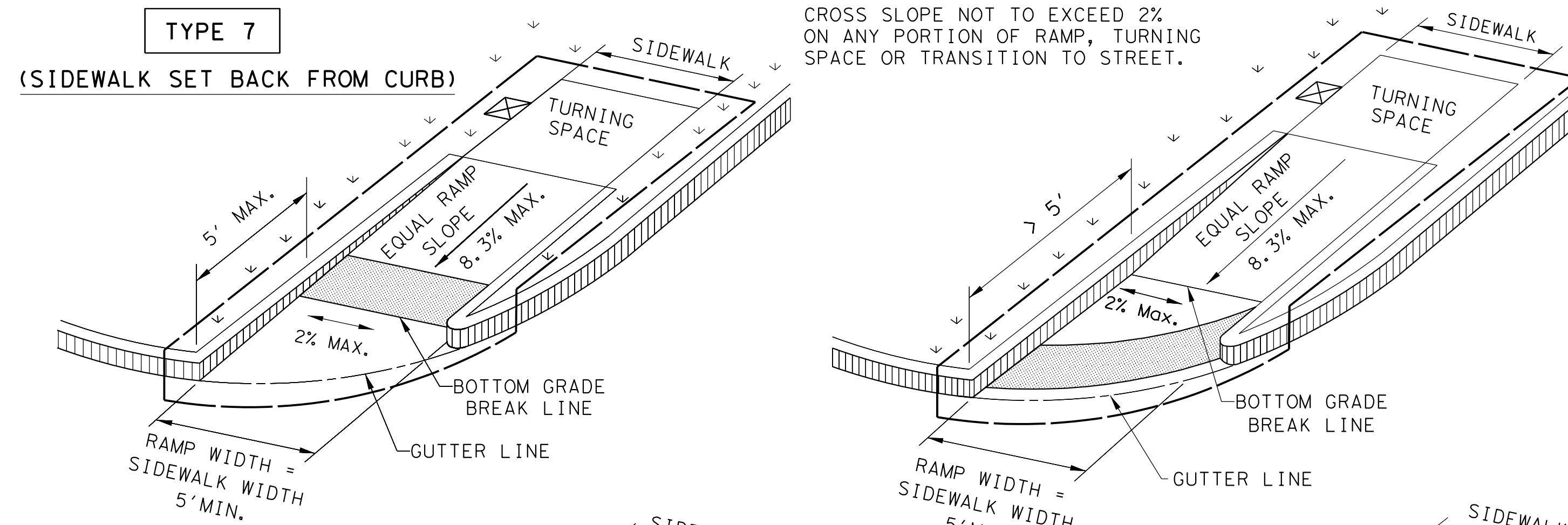
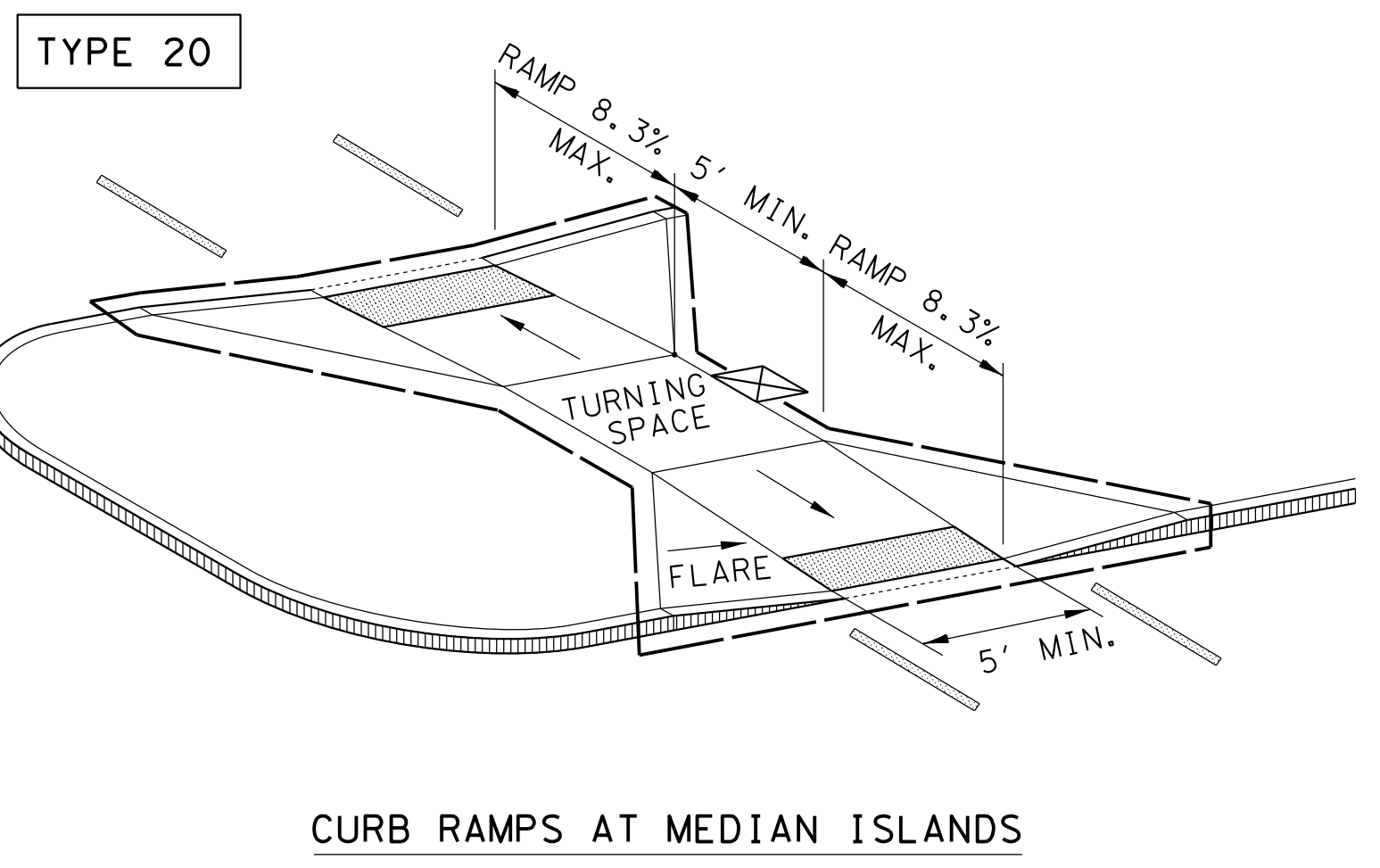
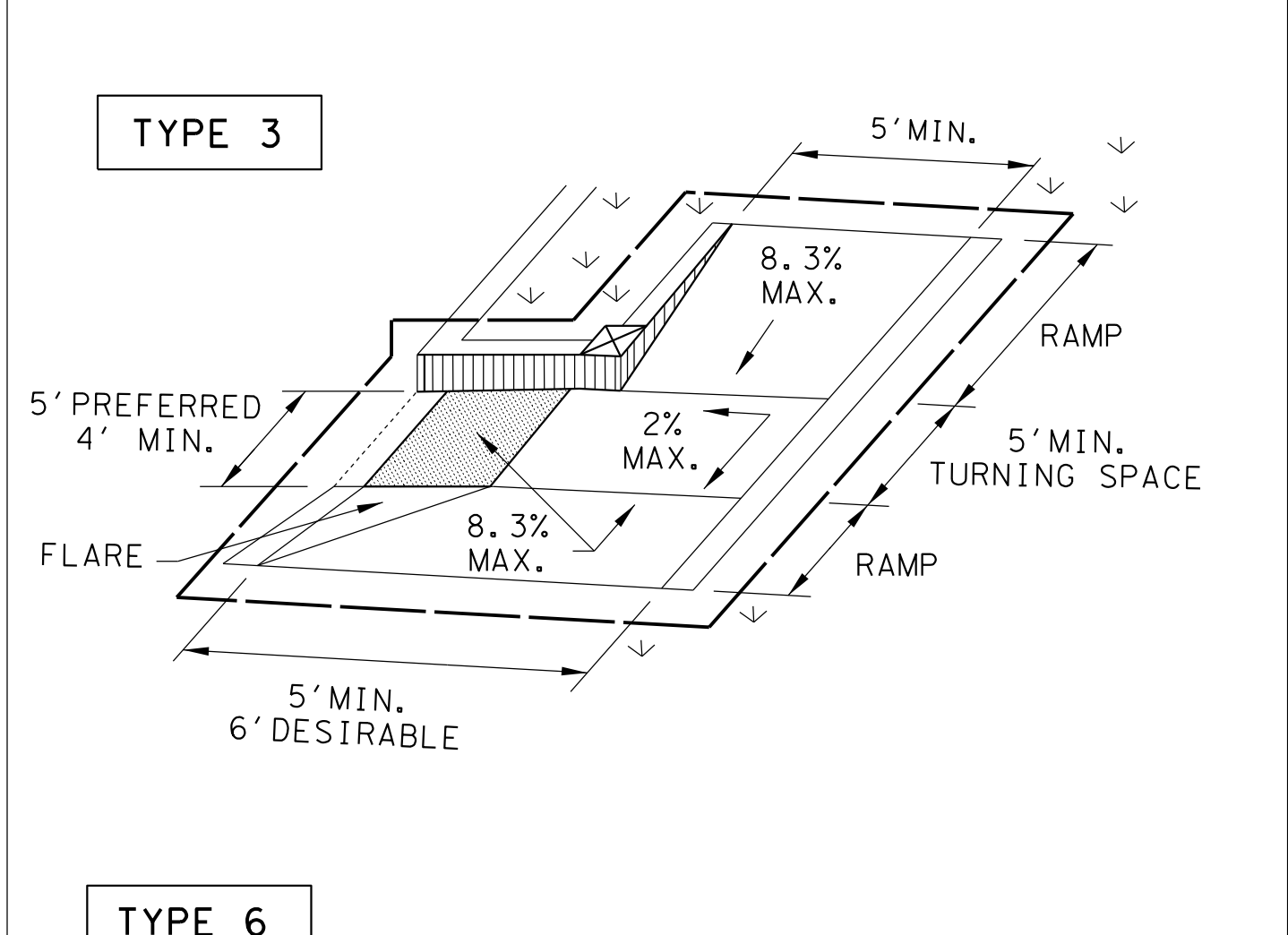
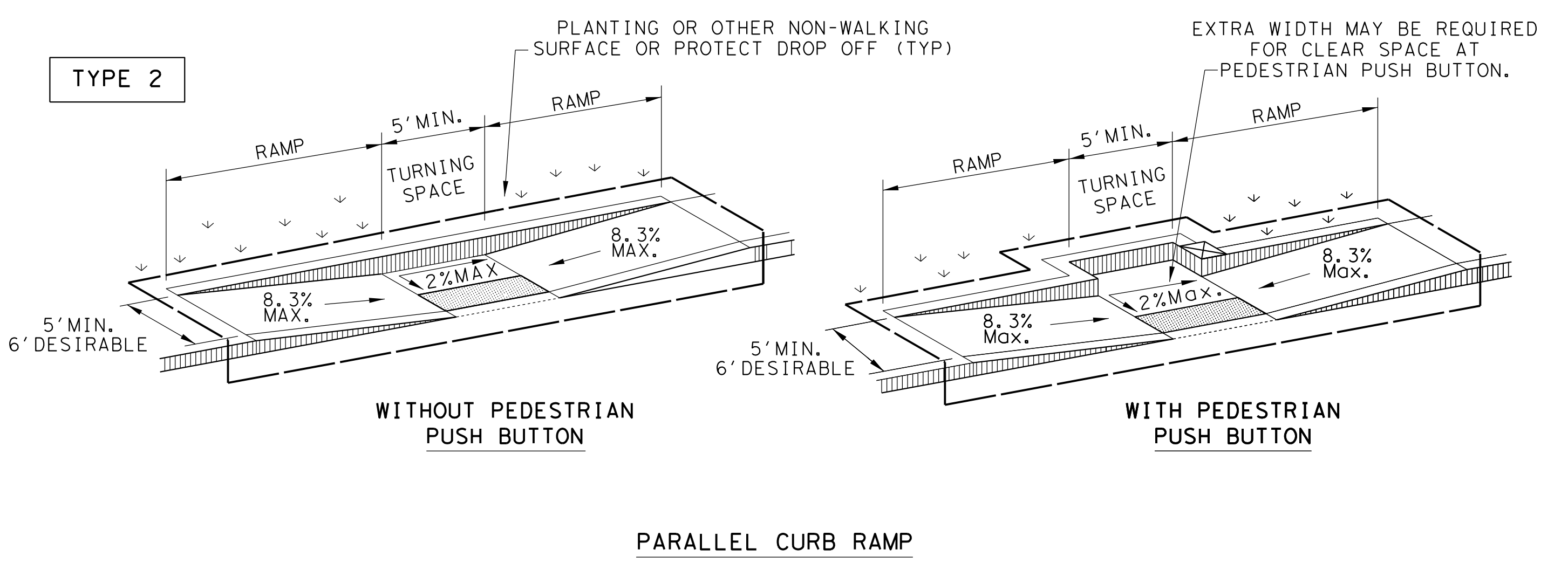
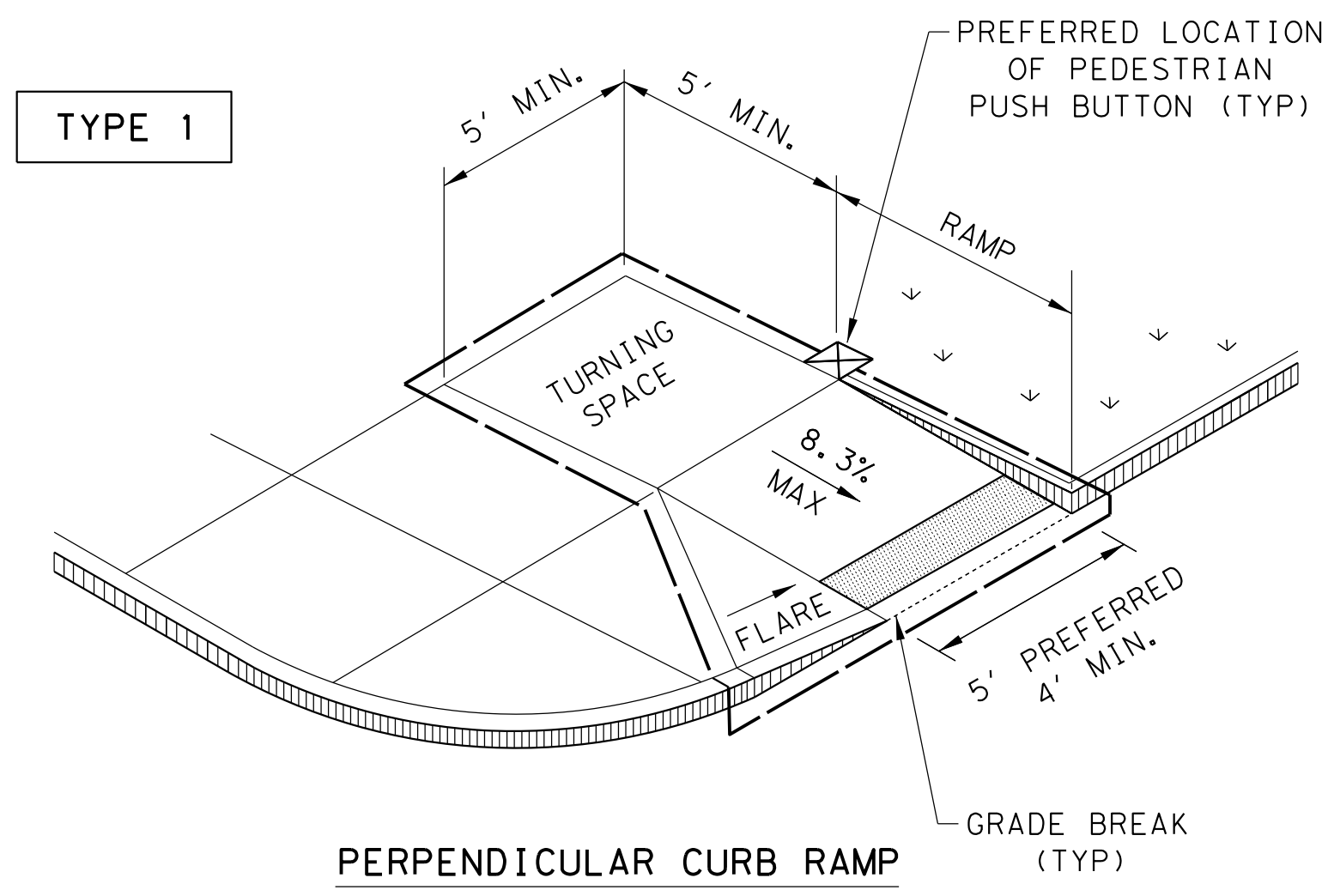
TCP (1-2) - 18

FILE: tcp1-2-18.dgn	DN:	CK:	DW:	CK:
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REVISIONS				
4-90 4-98				
2-94 2-12				
1-97 2-18				
	DIST	COUNTY	SHEET NO.	
			93	

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NOTES / LEGEND:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE.

Detectable Warning Surface: [Symbol]

Grade Break: [Symbol]

Ramp Limits of Payment: [Symbol]

Gutter Line: [Symbol]

SHEET 1 OF 4

Texas Department of Transportation

Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED 08, 2005				
REVISED 06, 2012				
REVISED 01, 2018				
DIST	COUNTY			SHEET NO.
				94

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GENERAL NOTES

CURB RAMP

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5' x 5' passing areas at intervals not to exceed 200' are required.
5. Turning Spaces shall be 5' x 5' minimum. Cross slope shall be maximum 2%.
6. Clear space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

DETECTABLE WARNING MATERIAL

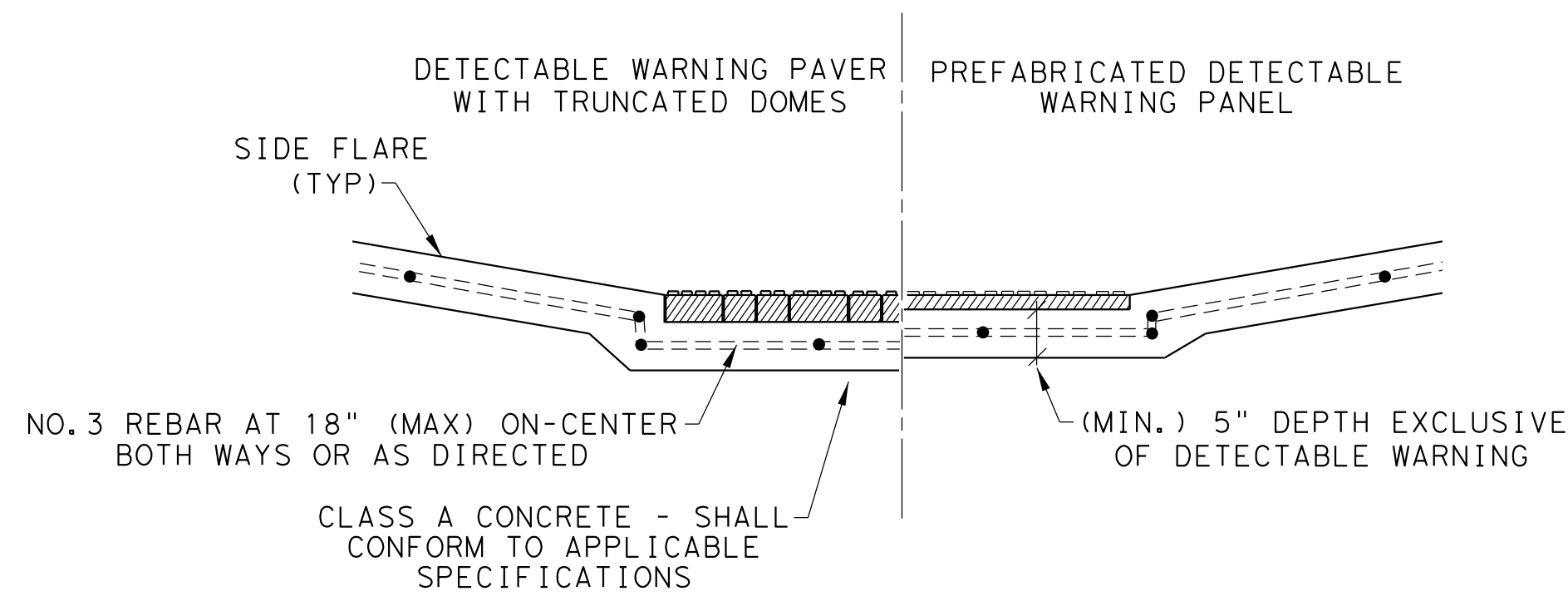
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

DETECTABLE WARNING PAVERS (IF USED)

25. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

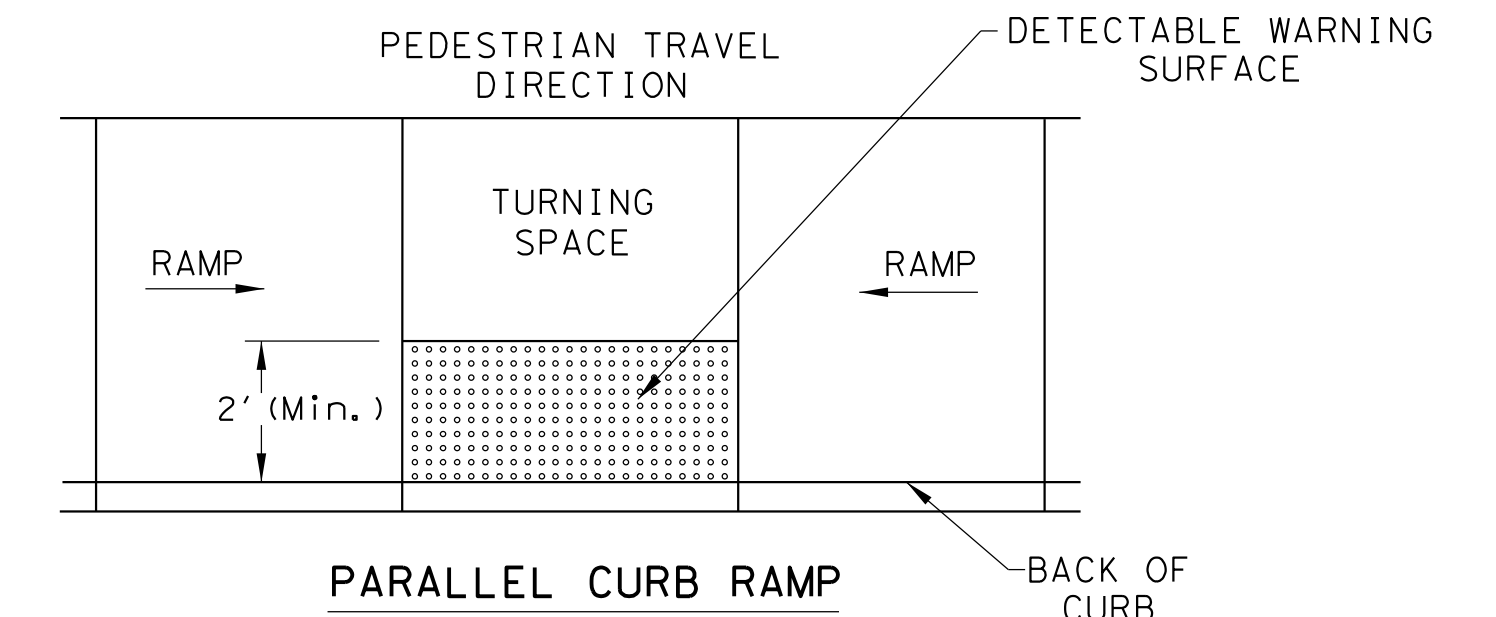
SIDEWALKS

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
34. Sidewalk details are shown elsewhere in the plans.

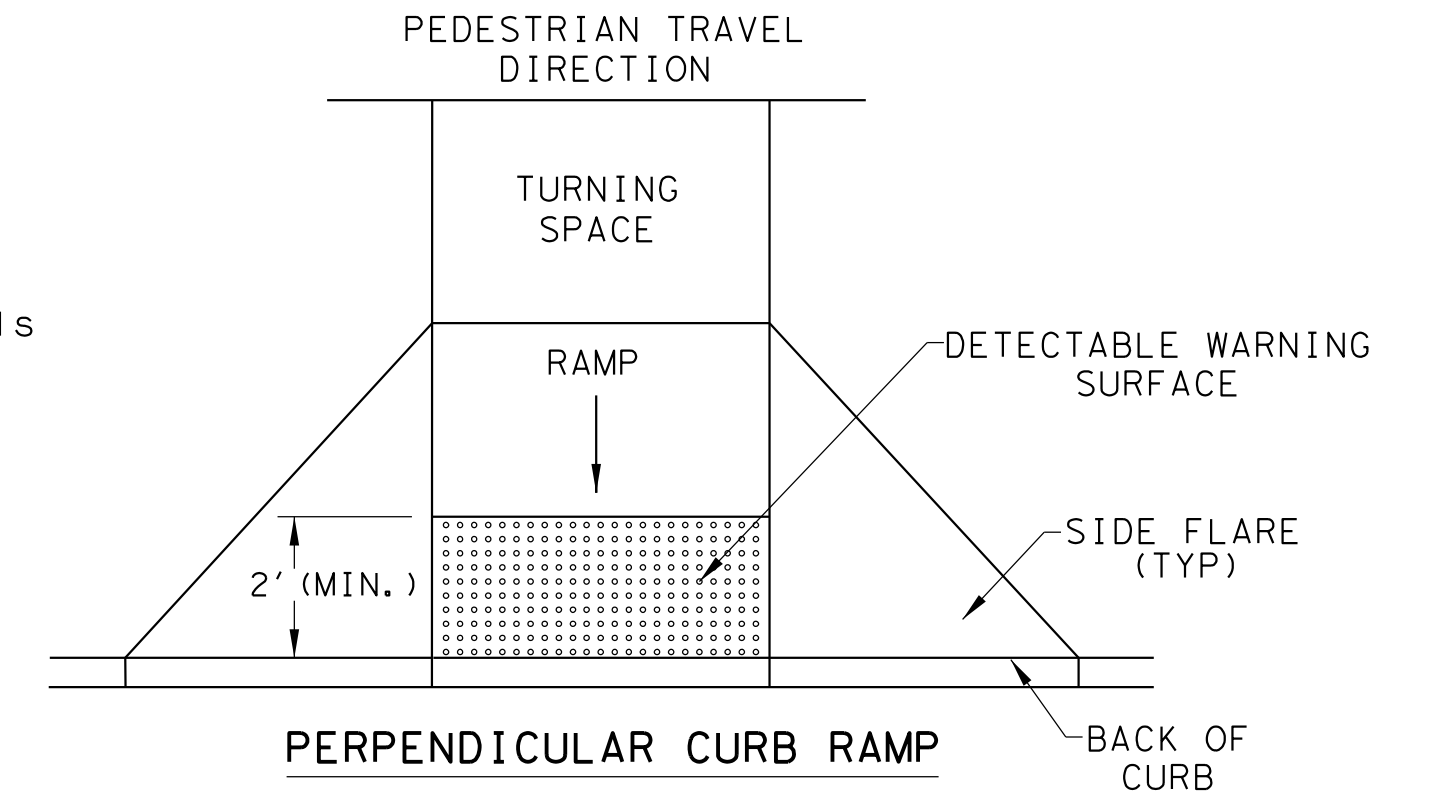


**SECTION VIEW DETAIL
CURB RAMP AT DETECTIBLE WARNINGS**

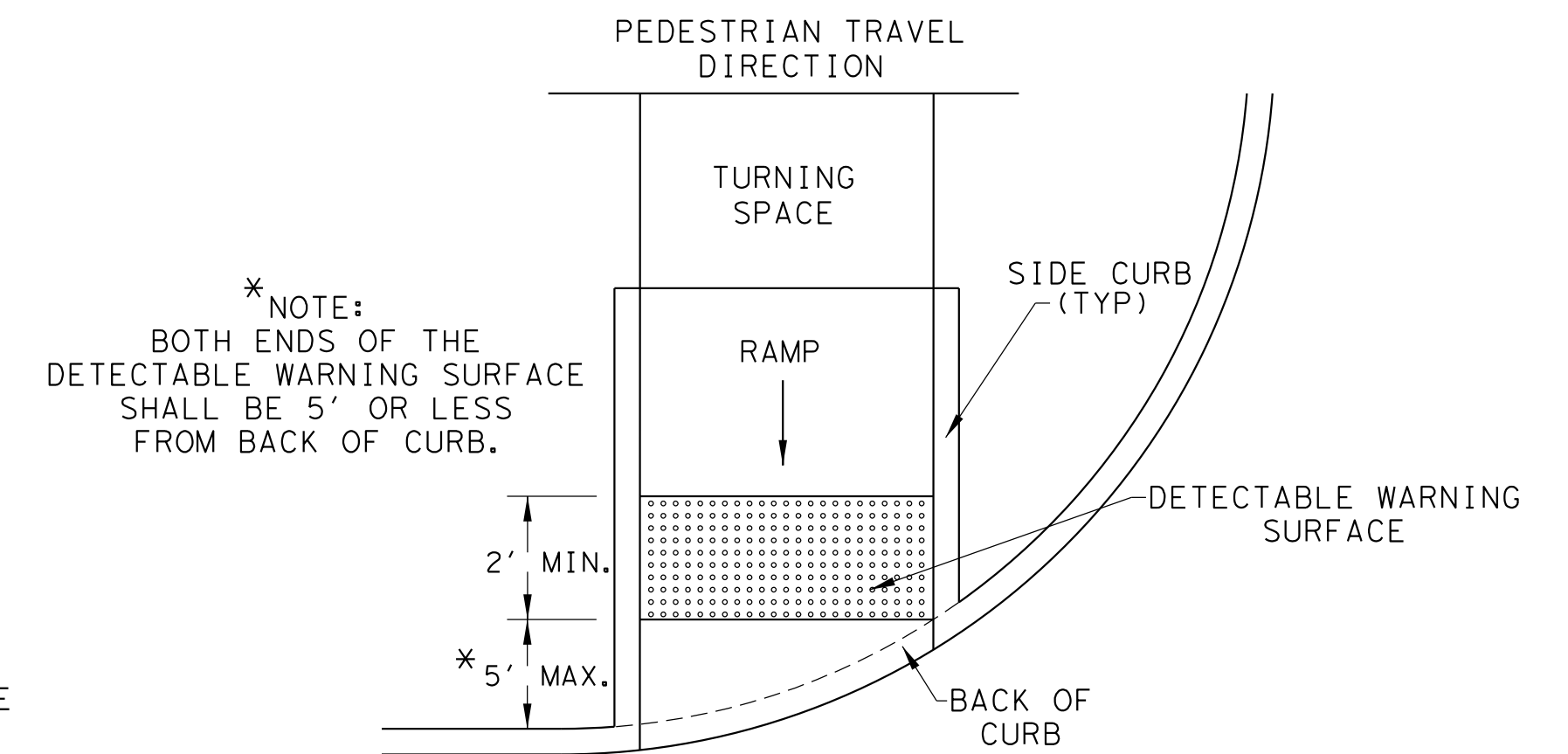
DETECTABLE WARNING SURFACE DETAILS



**PARALLEL CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE.**



**PERPENDICULAR CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.**



* NOTE:
BOTH ENDS OF THE
DETECTABLE WARNING SURFACE
SHALL BE 5' OR LESS
FROM BACK OF CURB.

DIRECTIONAL CURB RAMP

TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.

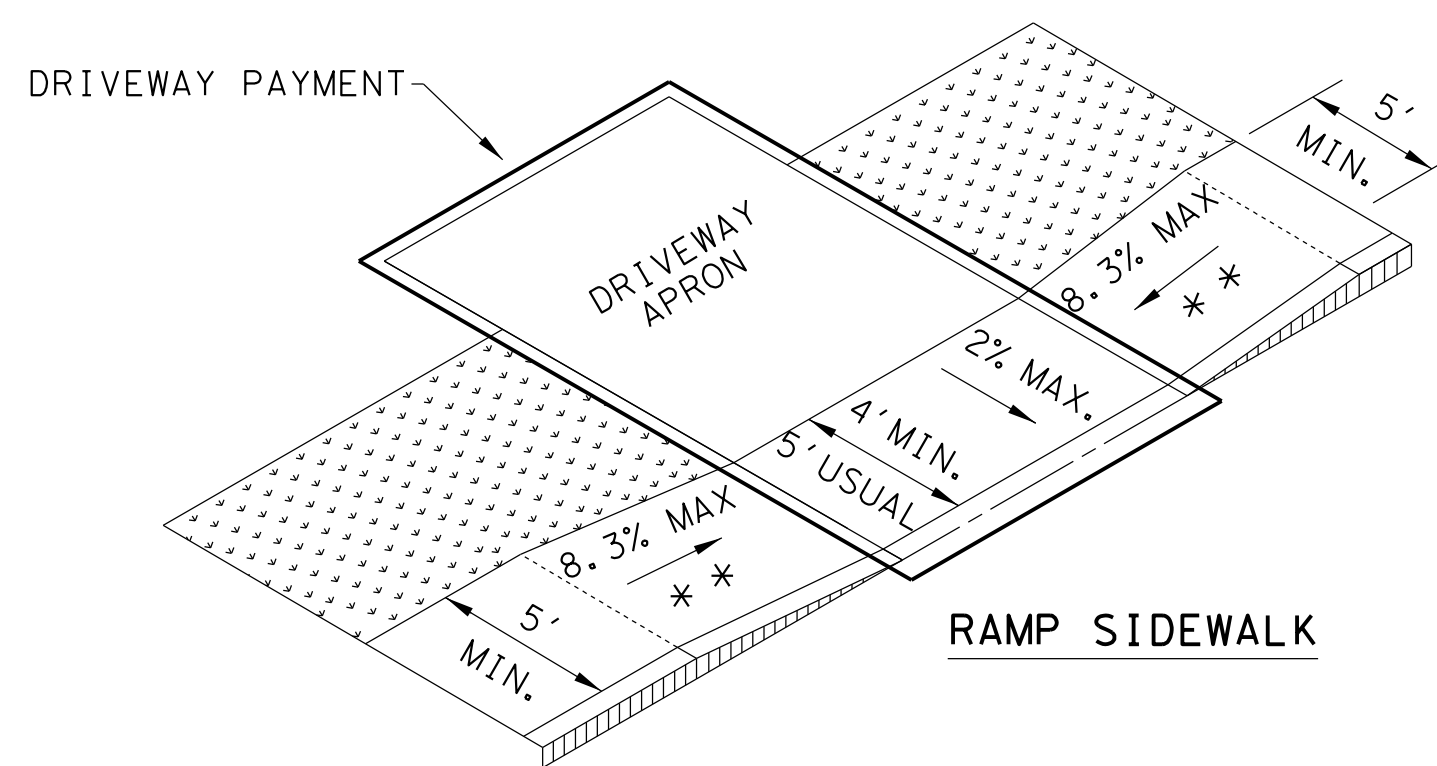
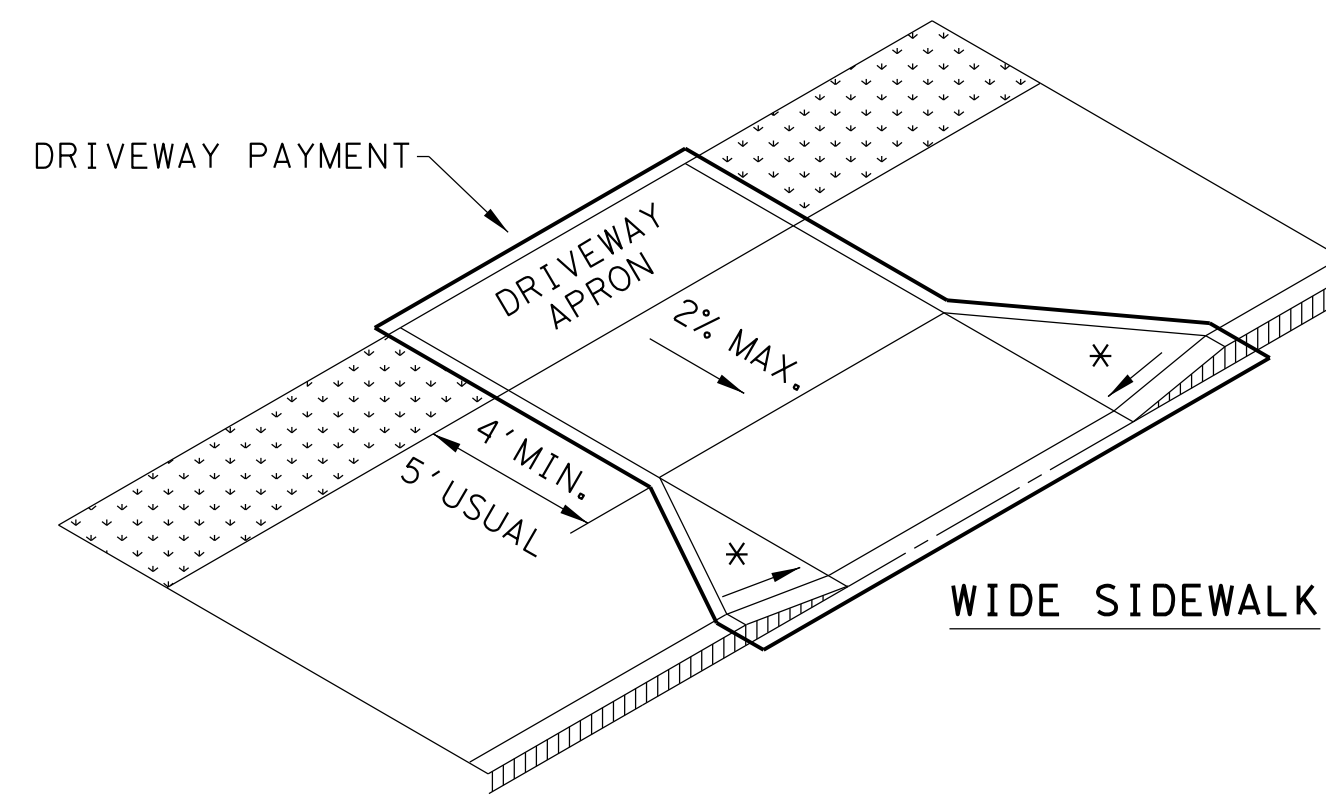
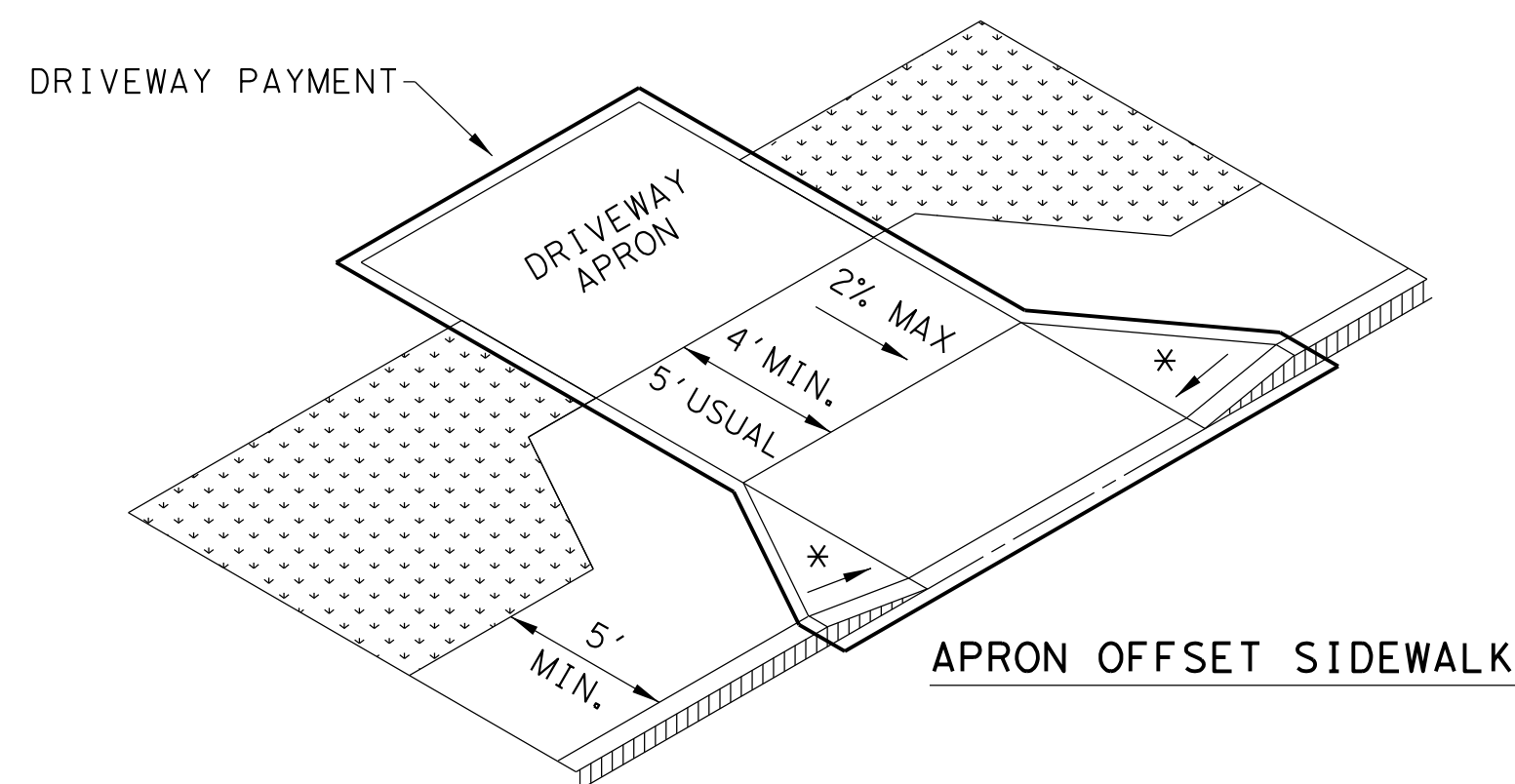
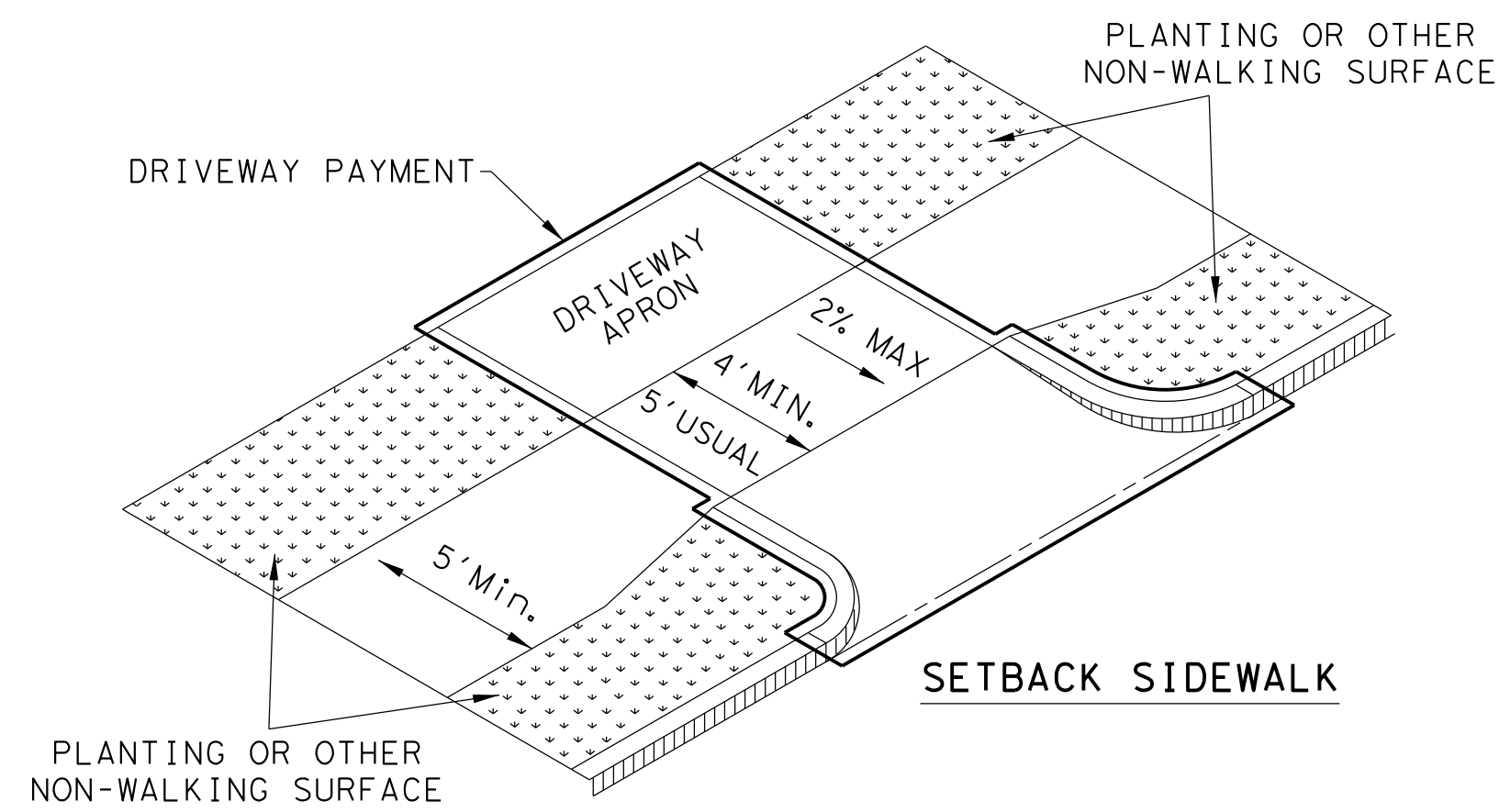
SHEET 2 OF 4

		Design Division Standard	
PEDESTRIAN FACILITIES CURB RAMPS			
PED-18			
FILE: ped18	DN: TxDOT	DW: VP	CK: KM
© TxDOT: MARCH, 2002	CONT	SECT	JOB
REVISIONS		HIGHWAY	
REVISED 08, 2005	DIST	COUNTY	SHEET NO.
REVISED 06, 2012			
REVISED 01, 2018			95

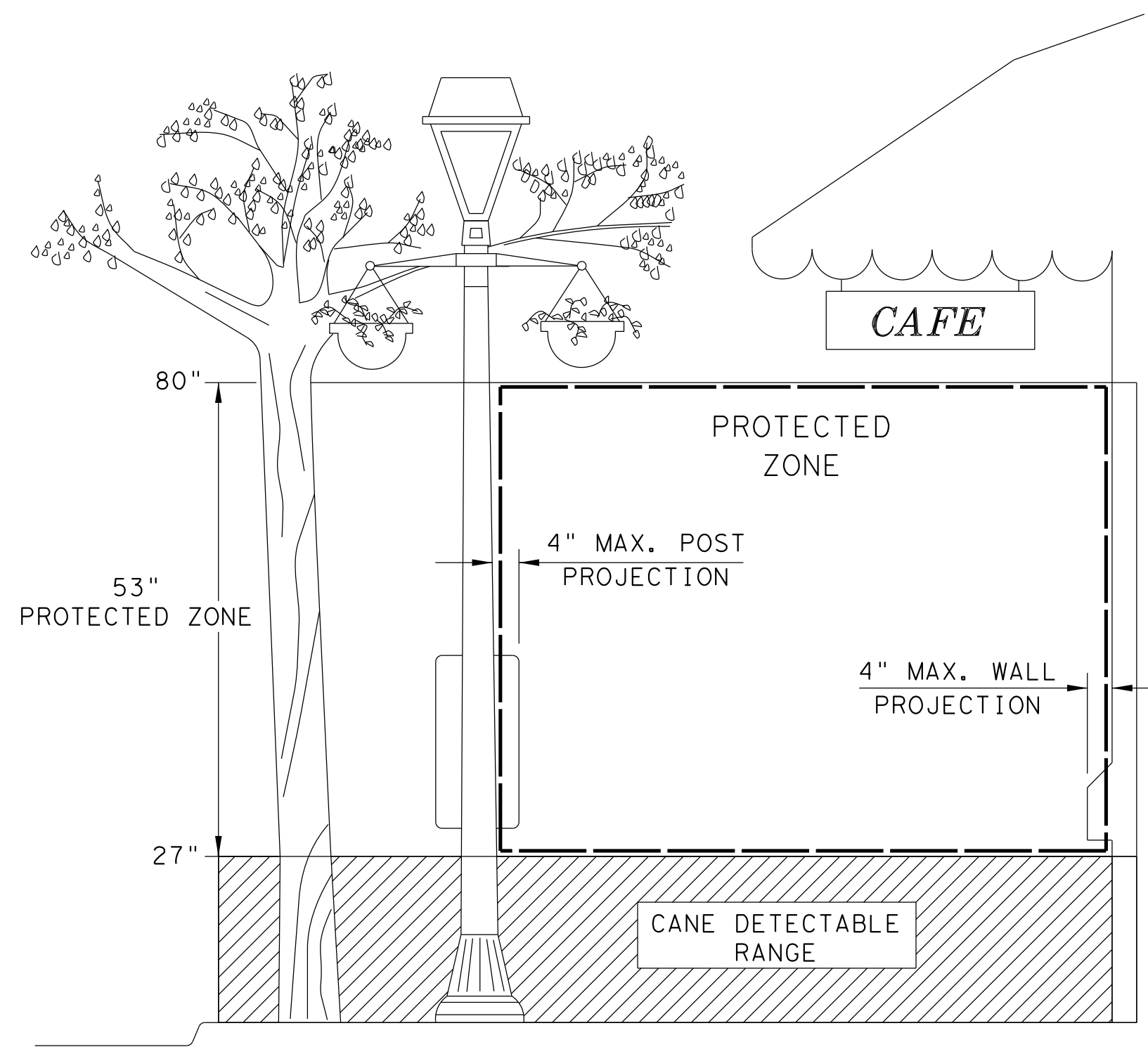
DATE:
FILE:

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SIDEWALK TREATMENT AT DRIVEWAYS

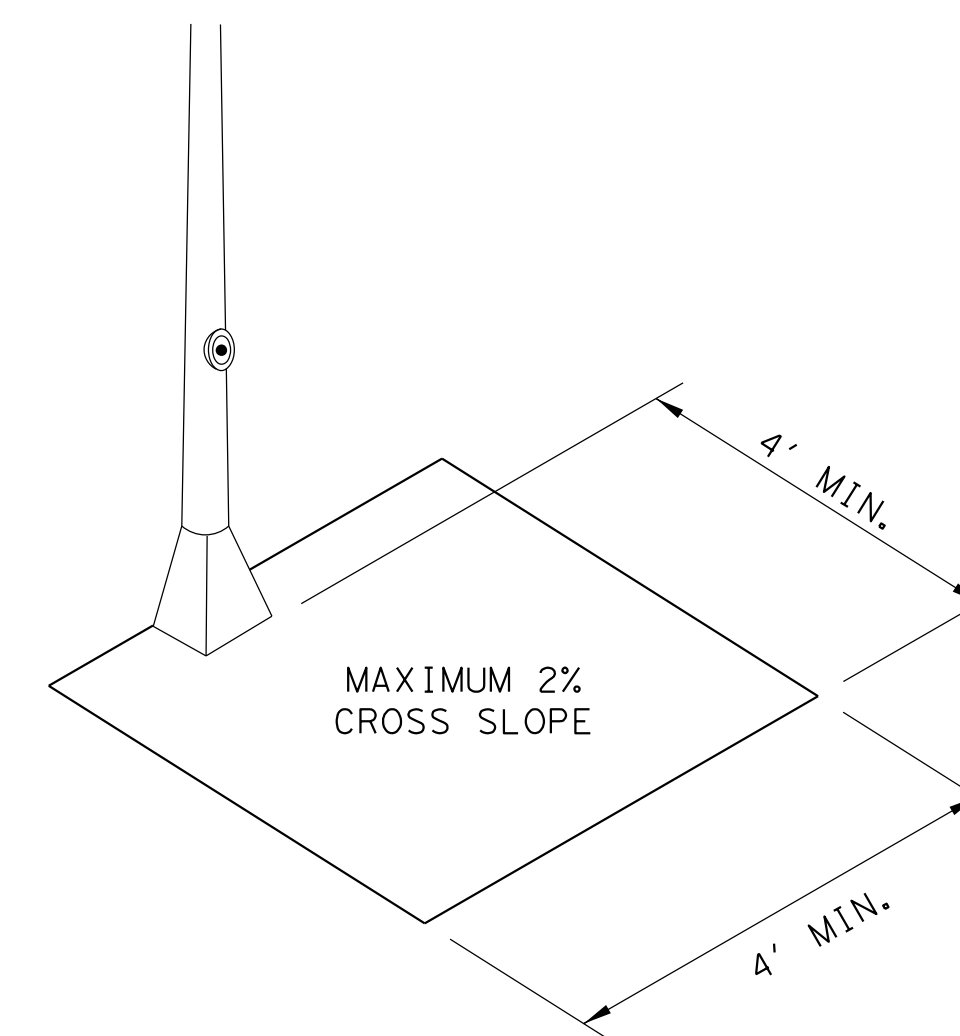


NOTES:
 * WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.
 * * IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.

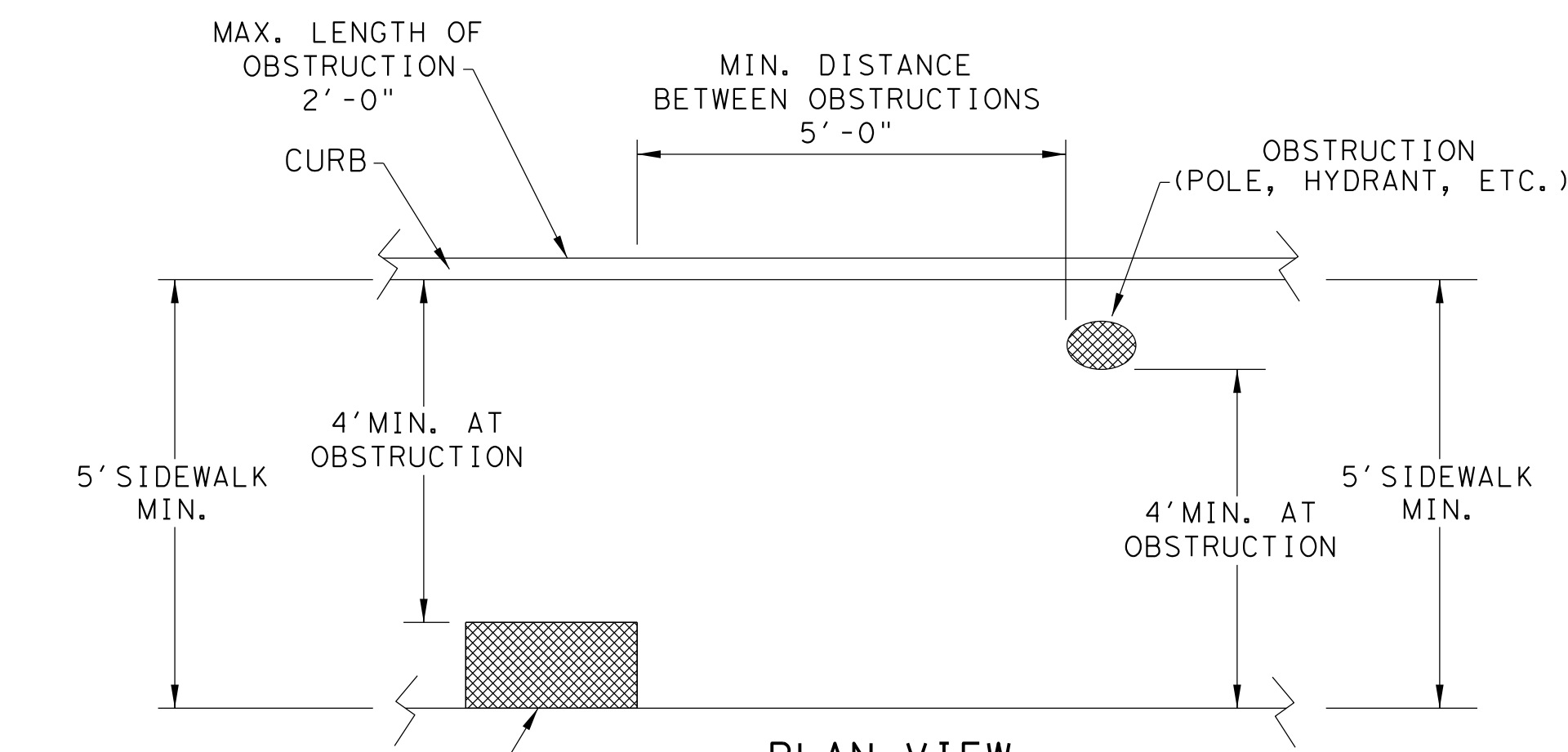


PROTECTED ZONE

NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.

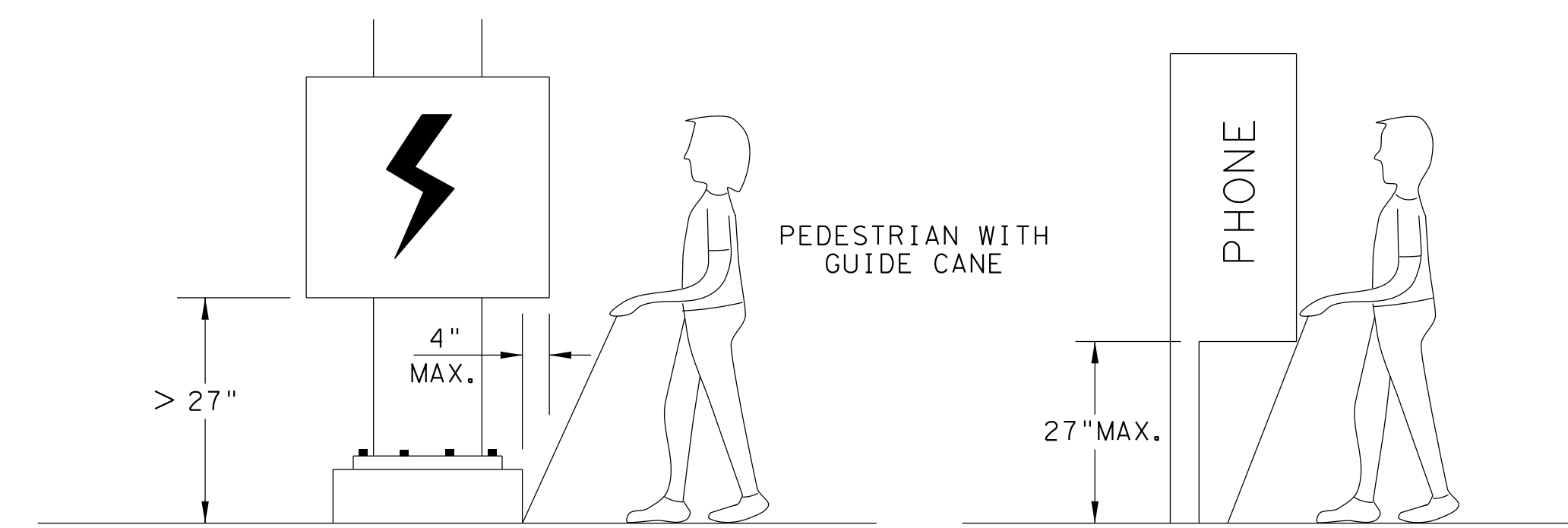


CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



PLACEMENT OF STREET FIXTURES

NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



WHEN AN OBSTRUCTION OF A HEIGHT GREATER THAN 27" FROM THE SURFACE WOULD CREATE A PROTRUSION OF MORE THAN 4" INTO THE PEDESTRIAN CIRCULATION AREA, CONSTRUCT ADDITIONAL CURB OR FOUNDATION AT THE BOTTOM TO PROVIDE A MAXIMUM 4" OVERHANG.

PROTRUDING OBJECTS OF A HEIGHT ≤ 27" ARE DETECTABLE BY CANE AND DO NOT REQUIRE ADDITIONAL TREATMENT.

DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

SHEET 3 OF 4



**PEDESTRIAN FACILITIES
CURB RAMPS**

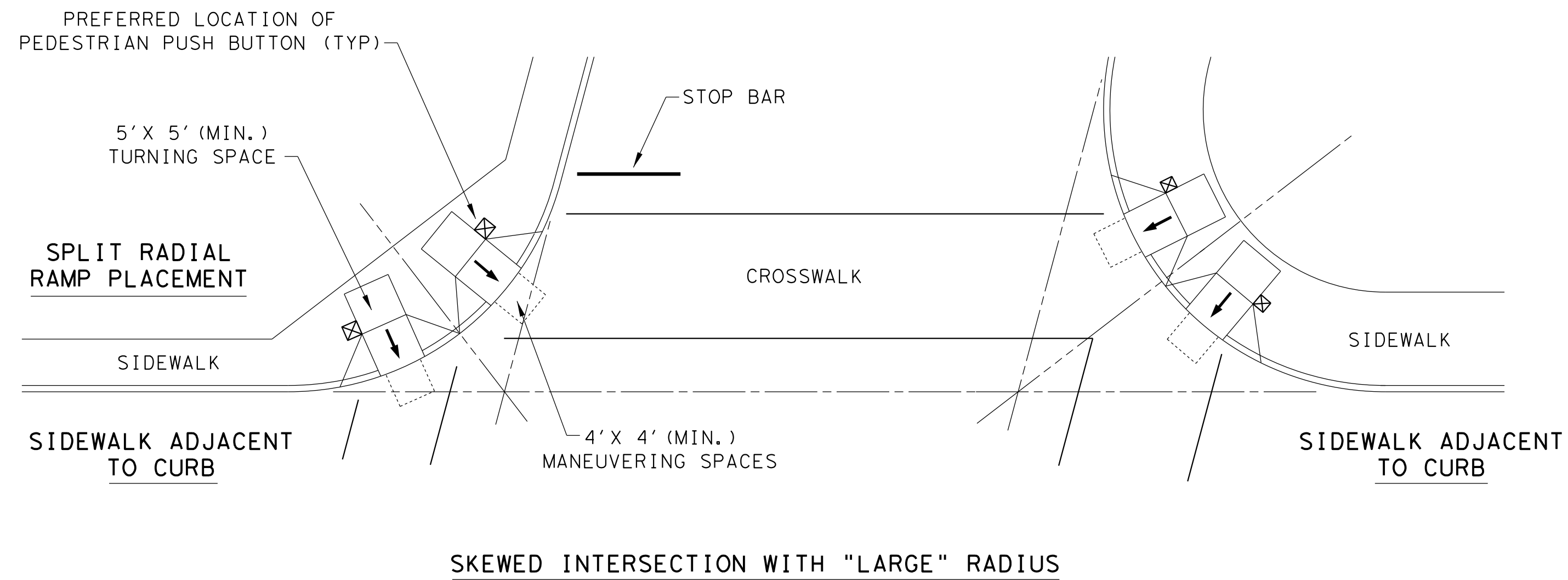
PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED 08, 2005				
REVISED 06, 2012				
REVISED 01, 2018				
DIST	COUNTY	SHEET NO.		
		96		

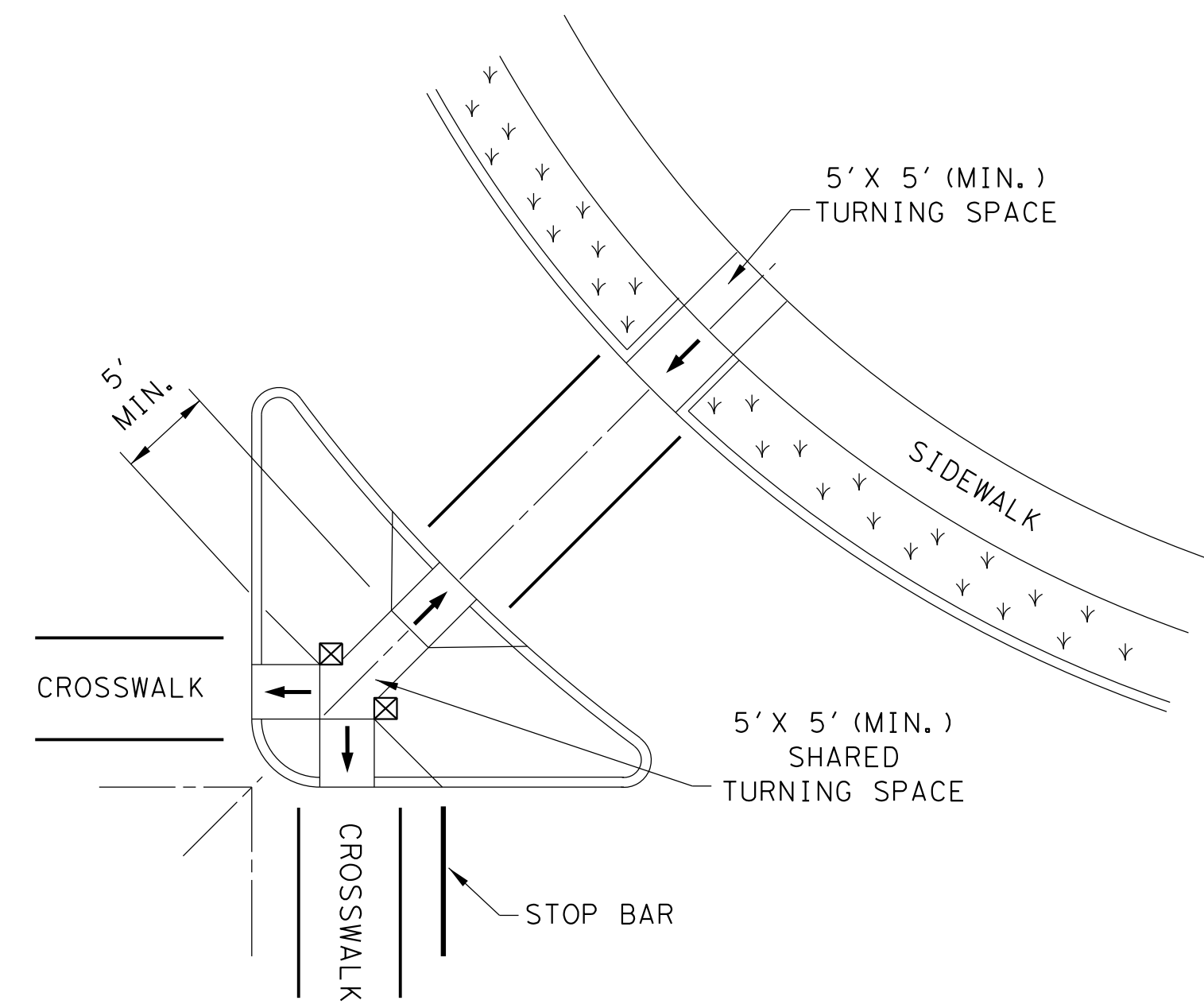
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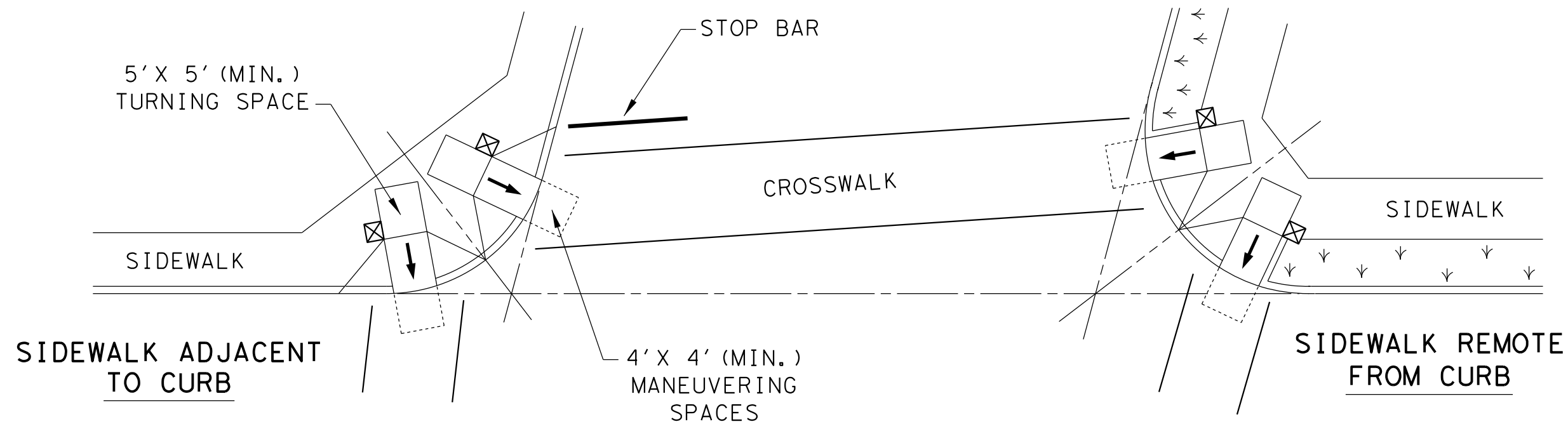
TYPICAL CROSSING LAYOUTS
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



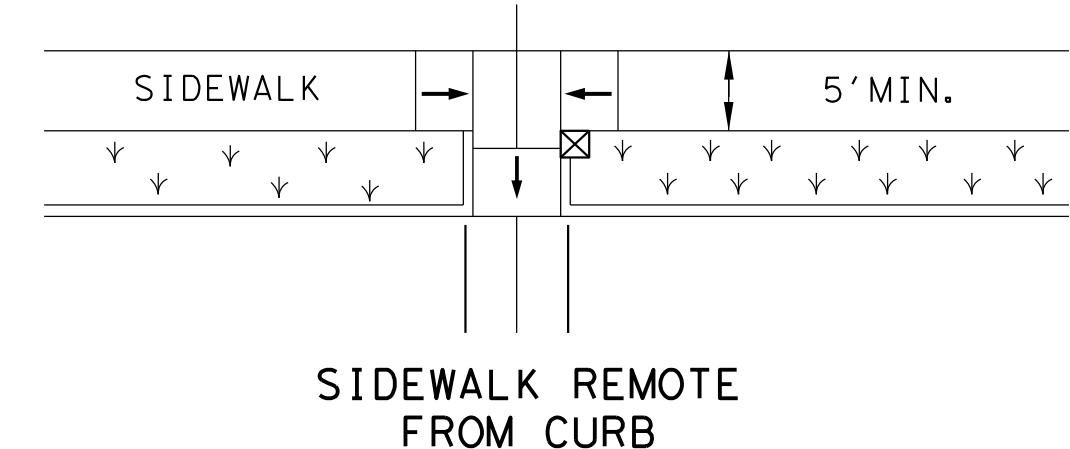
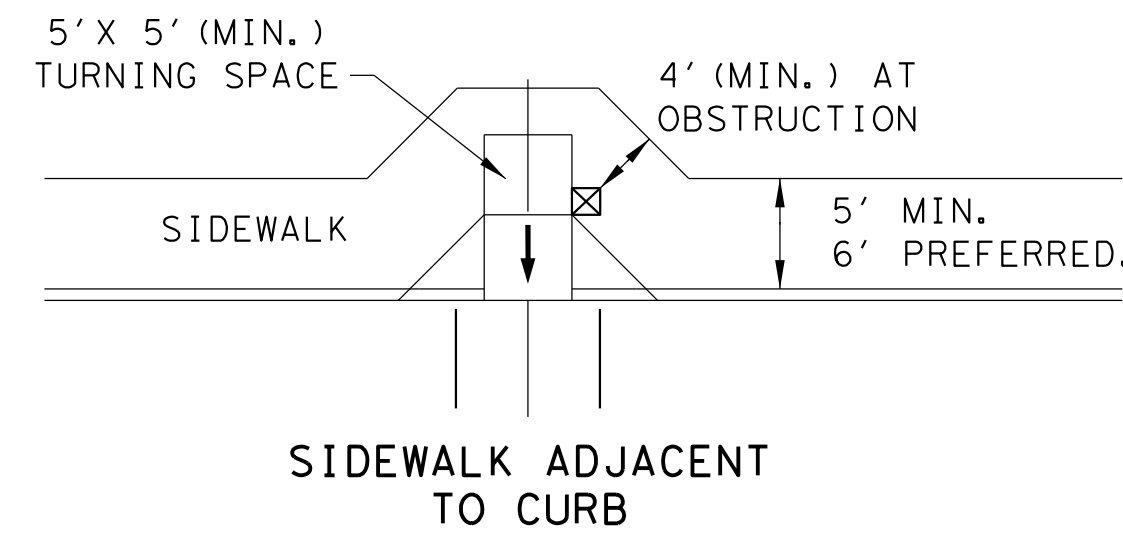
SKewed INTERSECTION WITH "LARGE" RADIUS



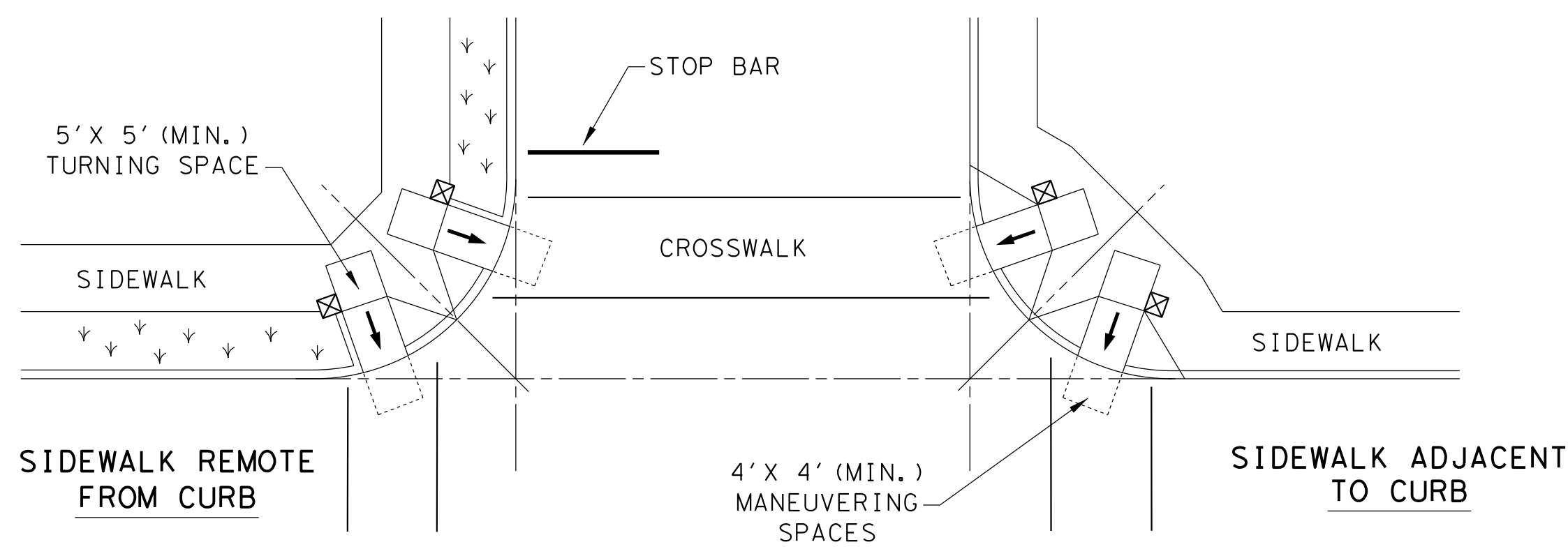
AT INTERSECTION W/FREE RIGHT TURN & ISLAND



SKewed INTERSECTION WITH "SMALL" RADIUS



MID-BLOCK PLACEMENT PERPENDICULAR RAMPS



NORMAL INTERSECTION WITH "SMALL" RADIUS

LEGEND:

SHOWS DOWNWARD SLOPE. →

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON (IF APPLICABLE). ☒

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH. ↙ ↘ ↙ ↘ ↙ ↘



PEDESTRIAN FACILITIES
CURB RAMPS
PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED 08, 2005				
REVISED 06, 2012				
REVISED 01, 2018				
DIST	COUNTY		SHEET NO.	
			97	

DATE:
FILE: