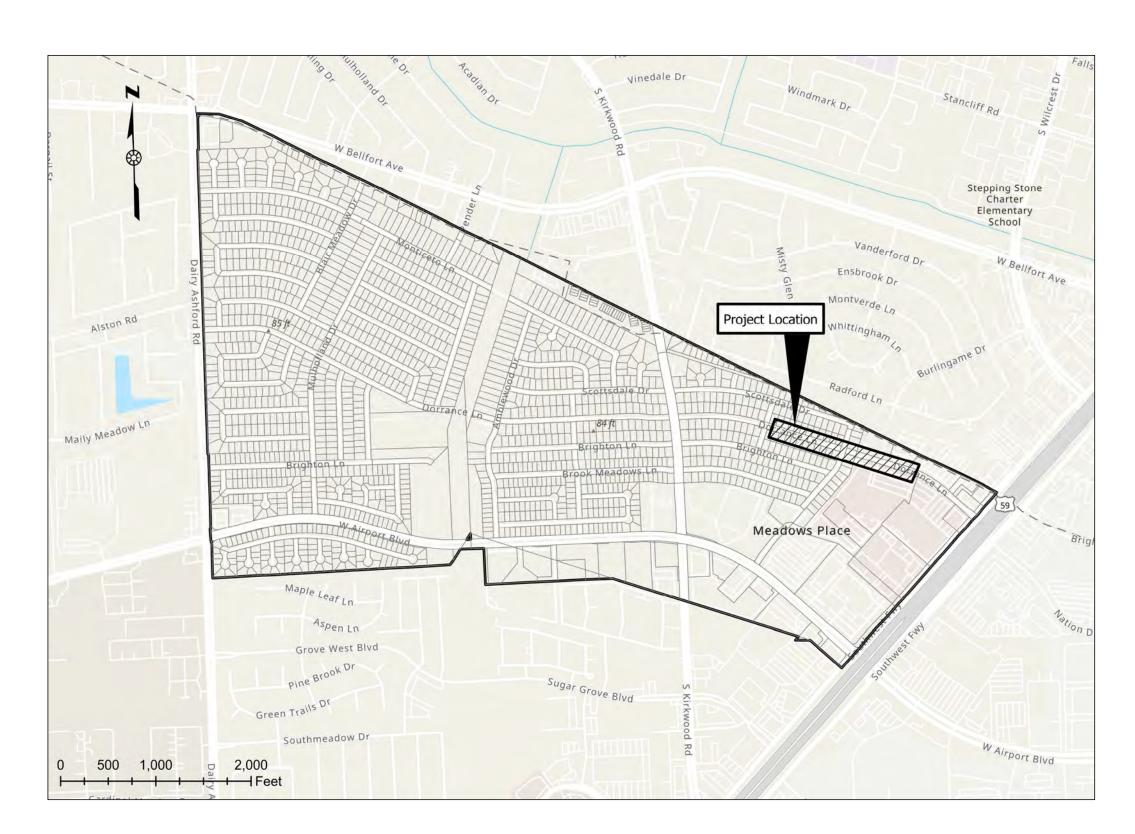


Registration No. F-754



Your Place for Life.



Fort Bend County Key Map: 569B

Contract Drawings For

Dorrance Lane

Reconstruction from Oxford Lane to past Bloomington Lane -Phase 2

Project No. 10402813

Meadows Place, Texas August, 2024

Mayor: Audrey St. Germain

Alderman I: David Mertins Sr. Alderman II: Tia Baker

Alderman III: Rick J. Staigle (Mayor Pro Tem)

Alderman IV: Kurt Kopczynski Alderman V: Kelle K. Mills

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(THIS SIGNATURE VERIFIES EXISTING UNDERGROUND FACILITIES — NOT TO BE USED FOR CONFLICT VERIFICATION.) SIGNATURE VALID FOR SIX MONTHS Jesse Rodriguez 10/10/2024 APPROVED FOR AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR.

NOTICE:

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED.

THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811.

VERIFICATION OF PRIVATE UTILITY LINES

Mike Brower DATE: 10/14/24

(GAS SERVICE LINES ARE NOT SHOWN).
THIS SIGNATURE NOT TO BE USED FOR CONFLICT VERIFICATION. SIGNATURE VALID FOR SIX MONTH

Mike Brower DATE: 10/14/24

CENTERPOINT ENERGY/UNDERGROUND ELECTRICAL FACILITIES

CENTERPOINT ENERGY NATURAL GAS UTILITIES SHOWN.

SUBMITTED BY:

hogor Kim he

Ngoc Kim Le, P.E. HDR Engineering, Inc.

08-14-2024

VERIFICATION ONLY.

- 1. CONTRACTOR SHALL REMOVE, PROVIDE TEMPORARY LOCATION, AND REPLACE MAILBOXES TO LOCATIONS PER U.S. POSTAL SERVICE STANDARDS AT NO SEPARATE COST TO THE PROJECT. THIS IS INCIDENTAL TO THE TRAFFIC CONTROL BID ITEM.
- 2. CONTRACTOR SHALL PROVIDE FOR CONTINUED SOLID WASTE COLLECTION SERVICE FOR AFFECTED RESIDENTS THROUGHOUT THE DURATION OF THE PROJECT AT NO SEPARATE COST TO THE PROJECT.
- 3. CONTRACTOR SHALL PROVIDE TEMPORARY DRIVEWAY ACCESS AS MANY TIMES AS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT.
- 4. CONTRACTOR SHALL COORDINATE WITH THE CITY TO PROVIDE ACCESSIBLE ACCESS TO LOCATIONS DESIGNATED BY THE CITY THROUGHOUT THE DURATION OF THE PROJECT AT NO SEPARATE COST TO THE PROJECT.
- 5. IN THE EVENT ANY EXISTING STORM SEWER PIPE DESIGNATED TO REMAIN IN SERVICE IS FOUND TO BE IN POOR CONDITION, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO PROCEEDING WITH WORK. ENGINEER AND CITY SHALL DETERMINE LIMITS (IF DETERMINED NECESSARY) OF ADDITIONAL REMOVAL/REPLACEMENT AND SHALL PAY FOR WORK PER APPLICABLE BID ITEMS.
- 6. CONTRACTOR SHALL REMOVE EXISTING WATER LINES AS REQUIRED FOR STORM SEWER INSTALLATION AT NO ADDITIONAL COST INCLUDING PLUGGING PIPE TO REMAIN IN PLACE.
- 7. THIS PROJECT SHALL BE CONSIDERED AN ALL-AUGER PROJECT IN REGARD TO WATER LINE CONSTRUCTION. ANY ADDITIONAL WORK (i.e. DRIVEWAY REMOVAL/REPLACEMENT) RESULTING FROM THE CONTRACTOR'S DECISION TO OPEN CUT SHALL BE PERFORMED AT THE CONTRACTOR'S COST.
- 8. PROPOSED PAVING TOP OF CURB GRADE PERCENTAGES ARE BASED ON BASELINE STATION DISTANCES; THEREFORE, LEFT SIDE & RIGHT SIDE CURB GRADES MAY VARY WITHIN LIMITS OF CURVED ROADWAY SECTION.
- 9. ALL WATER LINE FITTINGS AND PIPE JOINTS WITHIN 10' OF A FITTING SHALL HAVE RESTRAINED JOINTS PER DETAIL SHEET.
- 10. THERE SHALL NOT BE ANY VALLEY GUTTERS ACROSS INTERSECTION PAVEMENT.
- 11. CONTRACTOR SHALL PROVIDE 12" MINIMUM (6" ABSOLUTE MIN) CLEARANCE BETWEEN PROPOSED WATER LINES AND PROPOSED INLETS.
- 12. CONTRACTOR SHALL NOTIFY RESIDENT(S) A MINIMUM OF 72 HOURS AHEAD OF PERFORMING WORK IN FRONT OF THEIR PROPERTY TO ALLOW THE RESIDENT TIME TO REMOVE ANY LANDSCAPING THEY WISH TO SAVE. CONTRACTOR SHALL REMOVE LANDSCAPING AS NECESSARY FOR CONSTRUCTION AND REPLACE IN KIND TO BE PAID FOR PER THE APPLICABLE BID ITEM.
- 13. ALL CONCRETE PAVEMENT, DRIVEWAYS, AND/OR SIDEWALKS SHALL BE FULL-DEPTH SAWCUT AT LIMIT OF REMOVAL/REPLACEMENT AT NO ADDITIONAL COST.

CONSTRUCTION NOTES:

- 1. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
- 2. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT, OR ROCK TRACKED FROM THE EXCAVATED AREA.
- 3. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
- 4. CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.
- *DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- *AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- *STRUCTURAL CONTROL MEASURES.
- *LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
- 5. PHASING SHALL FOLLOW THE TRAFFIC CONTROL PLAN.
- 6. ALL PROPOSED POTABLE WATER LINES TO BE AUGERED.
- 7. CONTRACTOR SHALL REMOVE IRRIGATION SYSTEMS AS NECESSARY FOR CONSTRUCTION, AND REPLACE IN KIND TO BE PAID FOR PER THE APPLICABLE BID ITEM. THIS ITEM INCLUDES COORDINATION WITH RESIDENTS, DOCUMENTATION OF IRRIGATION LAYOUT, SPRINKLER HEADS, VALVES, AND PLUGGING THE EXISTING TO ALLOW FOR CONTINUED USE DURING CONSTRUCTION. IRRIGATION SYSTEMS WITHIN DECORATIVE LANDSCAPING AREAS ARE INCLUDED IN THIS ITEM.

4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264

Texas P.E. Firm

Registration No. F-754

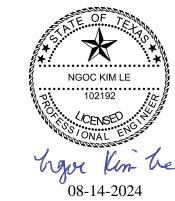
PROJECT FOR

Meadows Place, Texas

Dorrance Lane
Reconstruction Project



_	MARK DATE DE	SCRIPTION
_		
	PROJECT NUMBER	10402813
	ORIGINAL ISSUE	10402813
	ORIGINAL ISSUE	
_		
	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
2	INTERIOR DESIGNER	
,	EQUIPMENT PLANNER	
	WAYFINDING	



G.S. Fuller

SHEET NAME

DRAWN BY

DORRANCE LANE GENERAL NOTES

SCALE

SHEET NUMBER

)

NTS

FILE NAME

02-03 General Notes

3

- 1. THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- 2. THE CONTRACTOR SHALL CALL 1-800-344-8377 (TEXAS 811) A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
- 3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBT FACILITIES.
- 4. WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
- 5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.
- 6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER KEVIN RAY AT (713) 614-1983 OR E-MAIL HIM AT KR7896@ATT.COM, IF CABLE LOCATE REQUESTS ARE NOT COMPLETED FOR OUR AT&T TEXAS/SWBT FACILITIES.

COMCAST FACILITIES:

- 1. CONTACT MR. BILL LEOPARD AT 281-802-1679 OR MR. MOHAMMAD WOHEIDY AT 713-895-1213 BEFORE PROCEEDING WITH CONSTRUCTION WORK IN THE VICINITY OF COMCAST/TIME WARNER CABLE FACILITIES.
- 2. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AN UNDERGROUND UTILITY, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.

CENTERPOINT ENERGY GAS FACILITIES:

CAUTION: UNDERGROUND GAS FACILITIES

THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

- WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 207-5463 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
- WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
- FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-2111 OR (713) 207-4200.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

CENTERPOINT ENERGY ELECTRIC FACILITIES:

WARNING: OVERHEAD ELECTRICAL LINES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH AND SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:

- ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
- OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.

PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY

NO APPROVAL TO USE, CROSS, OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6348 OR (713) 207-5769.

WARNING: UNDERGROUND ELECTRICAL UTILITIES

THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

- ALL INFORMATION CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTORS ARE RESPONSIBLE MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO ADVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND PIPELINES, CONDUITS, AND STRUCTURES BY CONTACTING OWNERS OF UNDERGROUND UTILITIES OR BY EXCAVATING IN ADVANCE OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES WHEN AND WHERE THEY FALL IN THE PATH OF CONSTRUCTION.
- THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONTACTING THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 AND TEXAS ONE CALL AT 1-800-245-4545, FORTY-EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION.
- THE LOCATION OF ANY CENTERPOINT ENERGY UTILITIES ARE SHOWN IN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. THEY AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACT LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- ALL PROPOSED FACILITIES SHALL MAINTAIN 12" CLEAR FROM ALL EXISTING UTILITIES.



4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264

Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project

Meadows PLACE	P
IDACE	



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С		
	MARK DATE DES	SCRIPTION
-		
	PROJECT NUMBER	10402813
	ORIGINAL ISSUE	
_	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
В	INTERIOR DESIGNER	
_	EQUIPMENT PLANNER	
	WAYFINDING	
	DRAWN BY	G.S. Fuller



SHEET NAME

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS

VERIFICATION OF PRIVATE UTILITY LINES

Mike Brower DATE: 10/14/24

Mike Brower DATE: 10/14/24

CENTERPOINT ENERGY/UNDERGROUND ELECTRICAL FACILITIES

(THIS SIGNATURE VERIFIES EXISTING UNDERGROUND FACILITIES — NOT TO BE USED FOR CONFLICT VERIFICATION.) SIGNATURE VALID FOR SIX MONTHS

PPRÖVED FOR AT&T TEXAS/SWBT UNDERGROUND CONDUIT

FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR.

10/10/2024

CENTERPOINT ENERGY NATURAL GAS UTILITIES SHOWN.

(GAS SERVICE LINES ARE NOT SHOWN).

Jesse Rodriguez

VERIFICATION ONLY.

BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

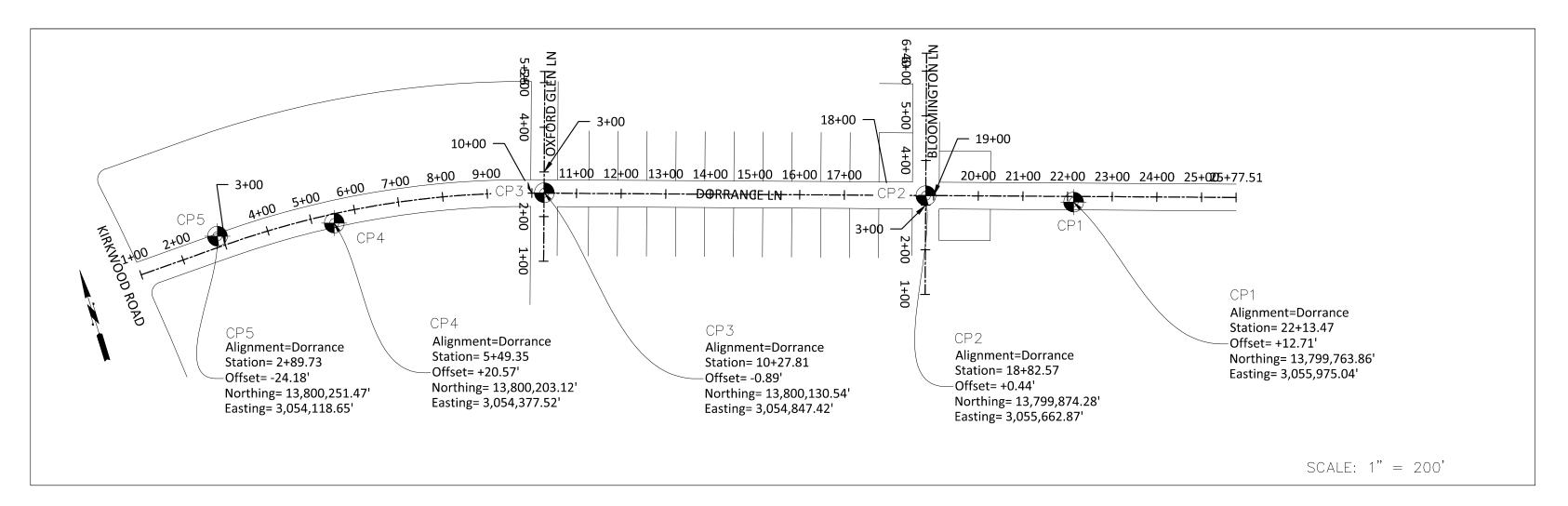
DORRANCE LANE **PRIVATE UTILITIES NOTES**

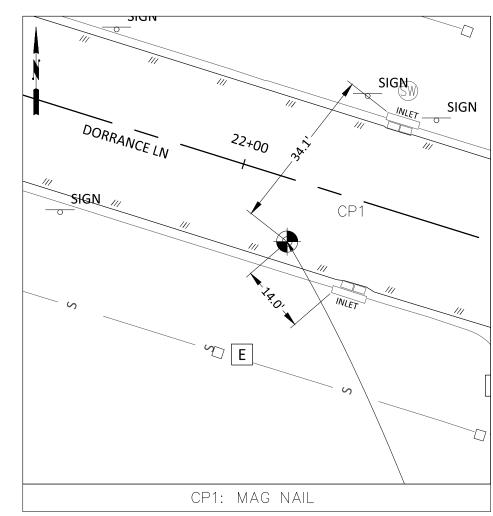
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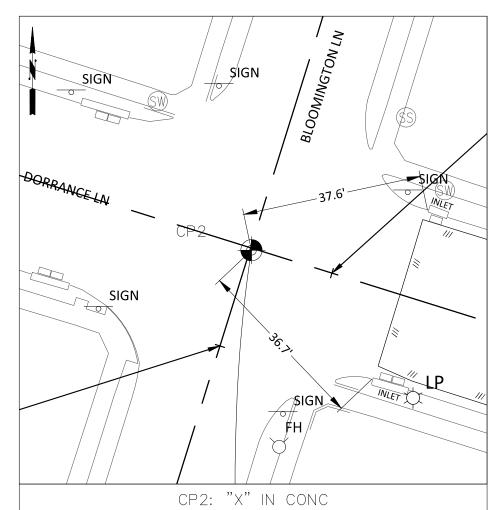
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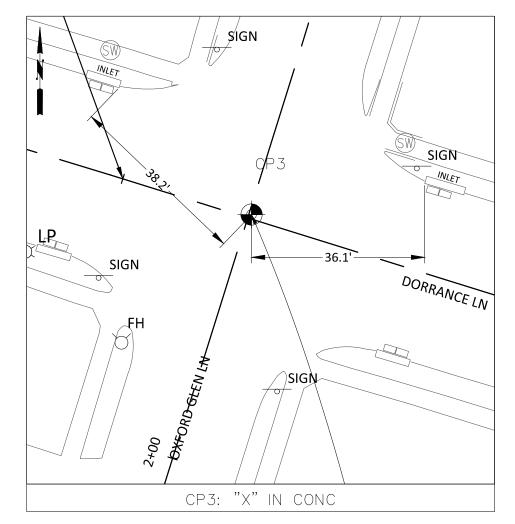
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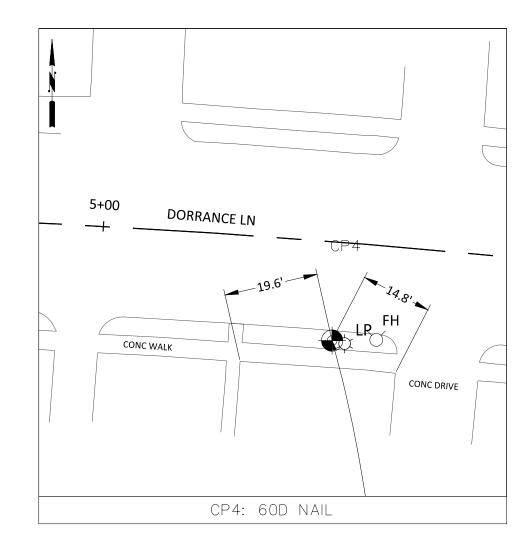
02-03 General Notes

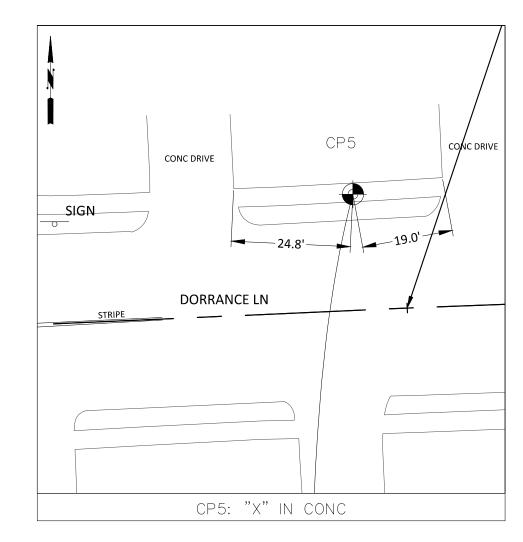




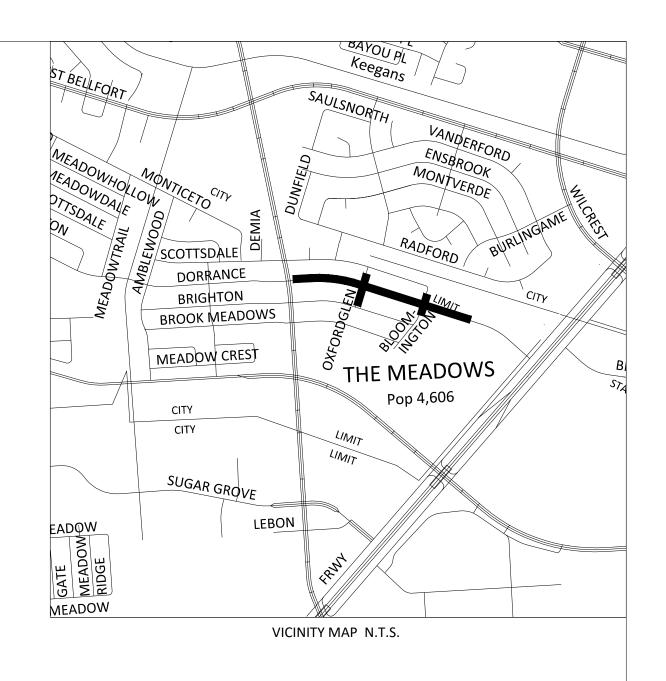








	CONTROL POINT CHART					
CP No.	NORTHING	EASTING	ELEVATION IN FEET	DESCRIPTION		
1	13799763.86	3055975.04	78.71	MAG NAIL		
2	13799874.28	3055662.87	79.20	"X" IN CONC		
3	13800130.54	3054847.42	79.41	"X" IN CONC		
4	13800203.12	3054377.52	80.26	NAIL 60D		
5	13800251.47	3054118.65	79.65	"X" IN CONC		
6	13803179.47	3053355.38	78.20	BM040415		
 7	13802127.82	3057513.96	75.52	BM040410		



FLOODPLAIN RM No.: 040410 STAMPING D118 BM03 VERTICAL DATUM: NAVD88-GEOID99 (CONUS) 2001 ADJ. ELEVATION = 75.52'

HARRIS COUNTY FLOODPLAIN REFERENCE MARKS

FLOODPLAIN RM No.: 040415 STAMPING D118 BM04 VERTICAL DATUM: NAVD88-GEOID99 (CONUS) 2001 ADJ. ELEVATION = 78.20'

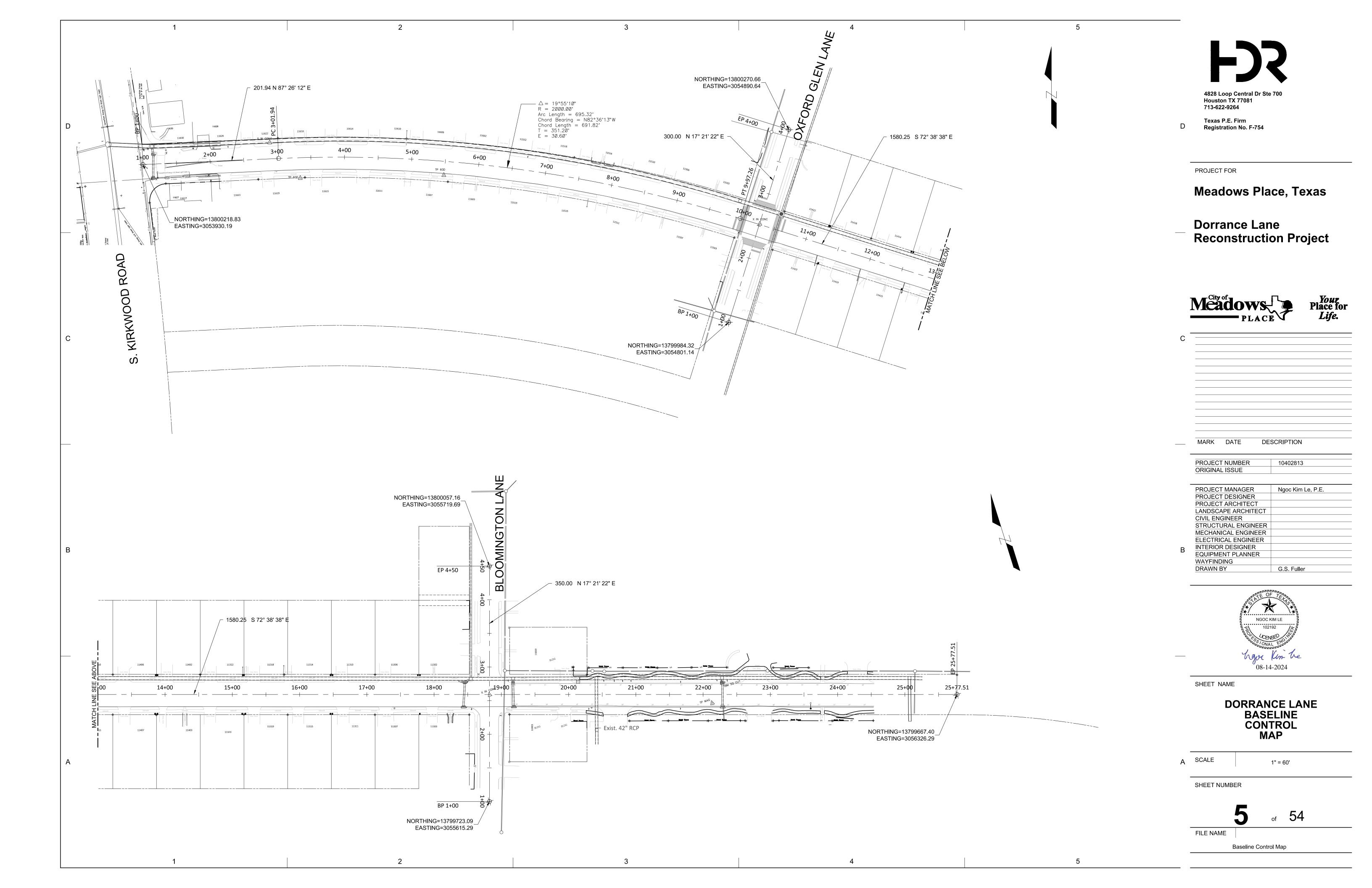
I, the undersigned, a Registered Professional Land Surveyor of the State of Texas, do hereby certify that this survey was made on the ground and is true and correct to the best of my knowledge and belief.

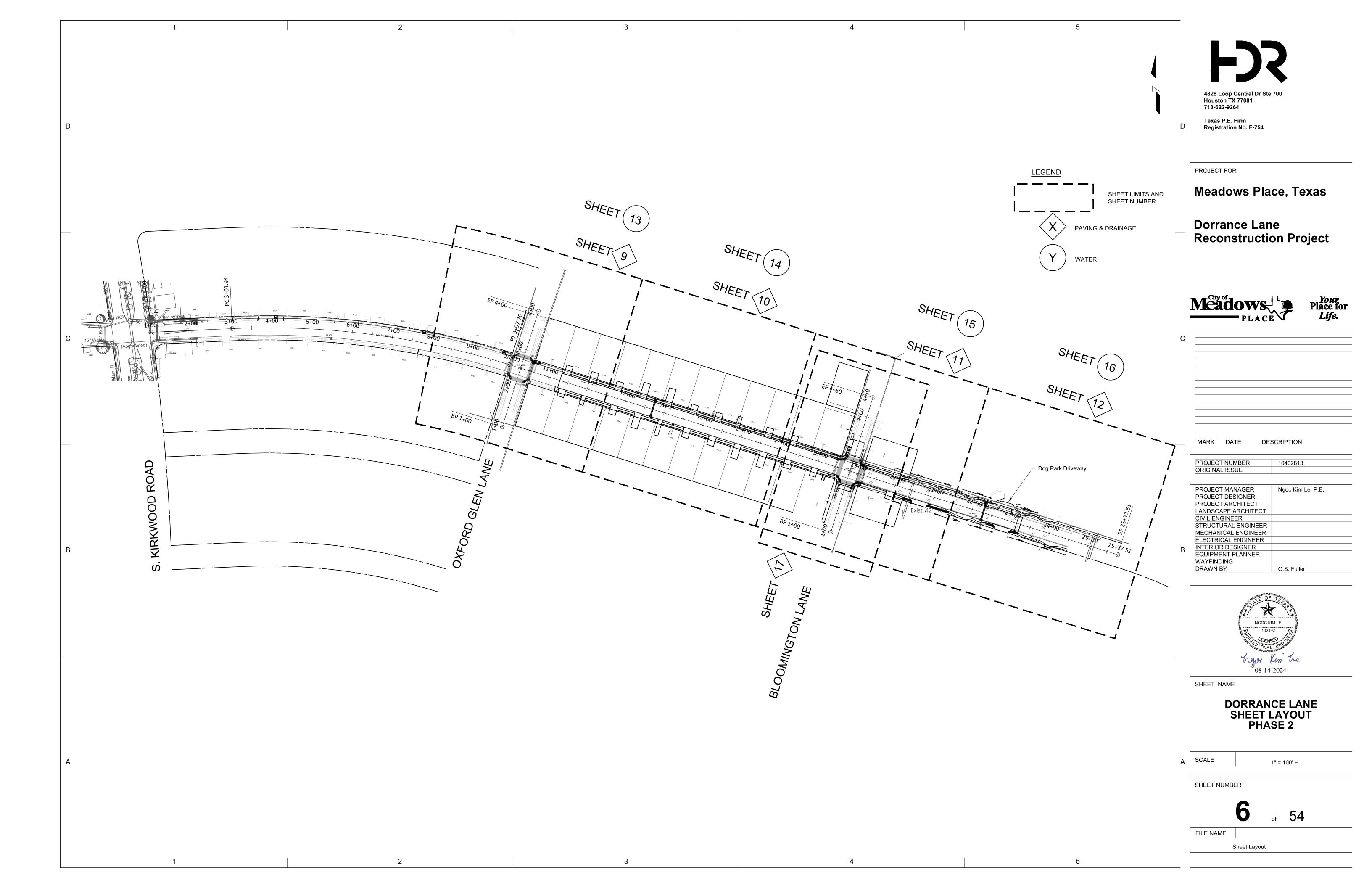
Robert D. Ellis Registered Professional Land Surveyor No. 4006



CONTROL SHEET
FOR
DORRANCE LANE
IN THE MEADOWS SECTION ONE
SUBDIVISION
FORT BEND & HARRIS COUNTY, TEXAS

2 Tex Tel: (409) 938	SURVEYING SERV 1805 25th Ave N 1as City, TX 77590 18-8700 www.ellissu 17 rm Reg. No. 10034	rvey.com
SCALE: 1" = 20'	JOB NUMBER	DATE: 4-22-2021
PHONE: (409)-938-8700	2942	SHEET 4 OF 54





C É	AIR CONDITIONING ARCHITECT/ENGINEER	CLKG CLR	CAULKING CLEAR	F TO F F&B	FACE TO FACE FACE AND BYPASS
	AMPERE	СМН	COMMUNICATION MANHOLE	FAB	FABRICATE
AN	ANCHOR BOLT ABANDON	CMP CMU	CORRUGATED METAL PIPE CONCRETE MASONRY UNIT	FB	FLOOR BEAM
C	AGGREGATE BASE COURSE	CO	CLEANOUT, CONCRETE OPENING	FBD FBG	FIBERBOARD FIBERGLASS
Т	ABOUT	COL	COLUMN	FBM	BOARD FOOT MEASURE
: K	ALTERNATING CURRENT ACKNOWLEDGE	COM COMB	COMMON COMBINATION	FB0	FURNISHED BY OWNER
K P	ACOUSTIC CEILING PANEL,	СОММ	COMMUNICATION	FC FCA	FLUSHING CONNECTION FLANGED COUPLING ADAPTER
ST.	ASPHALTIC CONCRETE PAVEMENT ACOUSTIC	COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE	FD	FLOOR DRAIN
ST)	ADDENDUM, AREA DRAIN	CON	COMPOSITE	FDC FDR	FLEXIBLE DUCT CONNECTION FEEDER
DL	ADDITIONAL	CONC	CONCRETE	FDTN	FEEDER FOUNDATION
)H)J	ADHESIVE ADJUSTABLE, ADJACENT	CONN CONST	CONNECTION CONSTRUCTION	FE	FLANGED END
	AMP FRAME, AMP FUSE	CONST	CONTINUOUS	FEC FES	FIRE EXTINGUISHER CABINET FLARED END SECTION
F	ABOVE FINISH FLOOR	COOR	COORDINATE	FEXT	FIRE EXTINGUISHER
G GR	ABOVE FINISH GRADE AGGREGATE	CORR CP	CORROSIVE, CORRUGATED CHECKER PLATE, CONTROL POINT	FF	FAR FACE, FACTORY FINISH, FLAT FACE
	AREA INLET, ANALOG INPUT	CPLG	COUPLING	FG FH	FINISHED GRADE FIRE HYDRANT
	AMPS INTERRUPTING CAPACITY	CRL	CORROSION - RESISTANT LINING	FIG	FIGURE
IG T	ALIGNMENT ALTERNATE, ALTITUDE	CSC CSK	COMPRESSION SLEEVE COUPLING COUNTERSINK	FIN FJT	FINISH FLUSH JOINT
UM	ALUMINUM	CSS	CLINIC SERVICE SINK	FL	FLOW, FLOW LINE
l IB	ACOUSTICAL MATERIAL AMBIENT	CT CTJ	CERAMIC TILE CONTRACTION JOINT	FLEX	FLEXIBLE
IC	ANCHOR	CTR	CENTER	FLG FLOR	FLANGE FLUORESCENT
)	ANALOG OUTPUT	CTRL	CONTROL	FLR	FLOOR
RX	ACCESS PANEL APPROXIMATE	CVT CU	CULVERT COPPER, CUBIC	FLS	FLASHING, FLUSH
VD	APPROVED	CW	CLOCKWISE	FN FO	FENCE FINISHED OPENING
CH	ARCHITECTURAL	CY	CUBIC YARD	FOB	FLAT ON BOTTOM
SY	ASSEMBLY ACOUSTICAL TILE, AMP TRIP	d	PENNY (NAIL MEASURE)	FOC	FACE OF CONCRETE, FACE OF CURB FACE OF FINISH
С	ACOUSTICAL TILE CEILING	D	DEEP, DIFFUSER, DRAIN	FOF FOM	FACE OF FINISH FACE OF MASONRY
M TO	ATMOSPHERE AUTOMATIC	DB DBA	DUCT BANK, DECIBEL, DRY BULB	FOS	FACE OF STUDS
JTO JX	AUXILIARY	DBL	DEFORMED BAR ANCHOR DOUBLE	FOT FPT	FLAT ON TOP FEMALE PIPE THREAD
Έ	AVENUE	DC	DIRECT CURRENT	FR	FRAME
G 'G	AVERAGE AMERICAN WIRE GAGE	DEG DEG C	DEGREE DEGREE CENTIGRADE	FRP	FIBERGLASS REINFORCED PLASTIC
T	AMERICAN WIRE GAGE ACOUSTICAL WALL TILE	DEG F	DEGREE FAHRENHEIT	FRTM FS	FIRE RETARDANT TREATED MATERIAL FLOOR SINK, FAR SIDE
TO 0		DEMO	DEMOLITION	FT	FEET, FOOT
TO B	BACK TO BACK BALANCE	DEP DEPT	DEPRESSED DEPARTMENT	FTG	FOOTING, FITTING
D	BULLETIN BOARD	DET	DETAIL	FUR FURN	FURRED, FURRING FURNITURE, FURNISH
	BASE CABINET, BOTTOM CHORD,	DIA	DROP INLET, DUCTILE IRON, DIGITAL INPUT	FUT	FUTURE
	BOLT CENTER, BOLT CIRCLE BOARD	DIA DIAG	DIAMETER DIAGONAL, DIAGRAM	FV FW	FACE VELOCITY FIELD WELD FIRE WALL FINISHED WATER
	BOTH ENDS, BELL END	DIFF	DIFFERENTIAL, DIFFERENCE	FWD	FIELD WELD, FIRE WALL, FINISHED WATER FORWARD
	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET	DIM DIP	DIMENSION DUCTILE IRON PIPE	FWE	FURNISHED WITH EQUIPMENT
'UM	BITUMINOUS	DISCH	DISCHARGE	FXTR	FIXTURE
(G	BACKING	DIST	DISTANCE, DISTRIBUTION	G	GRILLE, GROUND, GRIT
DG	BASE LINE BUILDING	DIV DL	DIVISION DEAD LOAD	GA	GAGE (METAL THICKNESS)
K	BLOCK	DMJ	DOUBLE MECHANICAL JOINT	GAL GALV	GALLON GALVANIZED
KG	BLOCKING	DMPF	DAMP PROOFING	GB	GRAB BAR, GRADE BREAK
VD I	BOULEVARD BENCHMARK, BEAM	DN DO	DOWN DISSOLVED OXYGEN, DIGITAL OUTPUT, DITTO	GC	GROOVED COUPLING
C	BACK OF CURB	DP	DEPTH	GD GEN	GUARD GENERAL
D	BOTTOM OF DUCT	DPDT	DOUBLE POLE, DOUBLE THROW	GFCI	GROUND FAULT CIRCUIT INTERRUPTER
G L	BOTTOM OF GRILLE BOTTOM OF LOUVER, BOLLARD	DPST DRN	DOUBLE POLE, SINGLE THROW DRAIN	GFMU GG	GROUND FACE MASONRY UNIT GUTTER GRADE
)P	BOTTOM OF PIPE	DS	DOWN SPOUT	GJ	GROOVED JOINT
)R)T	BOTTOM OF REGISTER BOTTOM	DT DUP	DOUBLE TEE, DRIP TRAP ASSEMBLY DUPLICATE	GL	GLASS
U	BOTTOM BOTTOM OF UNIT	DWG	DRAWING	GLB GND	GLASS BLOCK, GLULAM BEAM GROUND
	BASE PLATE	DWL	DOWEL	GND GP	GUY POLE
:G :GP	BEARING BEARING PLATE	DWR	DRAWER	GR	GRADE
KT	BRACKET	E	EAST	GRTG GST	GRATING GROUND STORAGE TANK
	BOTH SIDES	EA	EACH, EXHAUST AIR	GT	GREASE TRAP
) N	BRITISH THERMAL UNIT BETWEEN	EC ECC	ELECTRICAL CONTRACTOR ECCENTRIC	GV CVII	GATE VALVE
WLD	BUTT WELD	ED	EQUIPMENT DRAIN	GVL GW	GRAVEL GUY WIRE
D	BELL UP, BUILT-UP	EDB	ELECTRICAL DUCT BANK	GWB	GYPSUM WALLBOARD
R	BUILT—UP ROOFING BOTH WAYS	EE EF	EACH END EACH FACE	GYP	GYPSUM HARDBOARD
P	BYPASS	EFF	EFFLUENT, EFFICIENCY	Н	HIGH
С	CENTER TO CENTER	EHH EIFS	ELECTRICAL HANDHOLE EXTERIOR INSULATION & FINISH SYSTEM	НВ	HOSE BIBB
G G	CURB AND GUTTER	EJFS	EXPENSION JOINT	HBD HC	HARDBOARD HANDICAPPED, HOLLOW CORE, HORIZONTAL
	CHANNEL SHAPE, CENTIGRADE, CONDUIT	EL	ELBOW, ELEVATION		CURVE, HORIZONTAL CENTERLINE
B P	CABINET CAPACITY	ELEC EMBD	ELECTRICAL EMBEDDED	HD	HEAD, HOT DIP
Т	CAPACITY CATALOG, CATALOGIORY	EMER	EMBEDDED	HDR HDW	HEADER HARDWARE
V	CAVITY	EMH	ELECTRICAL MANHOLE	HEX	HEXAGONAL
В	CATCH BASIN CONCRETE BLOCK	ENCL ENGR	ENCLOSURE ENGINEER	HGR	HANGER
W	COUNTER CLOCKWISE	ENTR	ENTRANCE	HH HID	HANDHOLE HIGH—INTENSITY DISCHARGE
=	CONTROLLED-DENSITY FILL	EOP	EDGE OF PAVEMENT	НМ	HOLLOW METAL
R	CONCRETE EDGE CERAMIC	EQ EQUIP	EQUAL EQUIPMENT	HORIZ	HORIZONTAL
	CUBIC FEET (FOOT)	EQUIV	EQUIVALENT	HP HPC	HIGH POINT, HORSEPOWER, HIGH PRESSURE HORIZONTAL POINT OF CURVATURE
- DD	COUNTER FLASHING	ES	EACH SIDE, EQUAL SPACE,	HPS	HIGH-PRESSURE SODIUM
BD D	CHALKBOARD CHORD	ESEW	EMERGENCY SHOWER EMERGENCY SHOWER AND EYE WASH	HPT	HORIZONTAL POINT OF TANGENCY
FR	CHAMFER	EST	ESTIMATE	HR HS	HOSE REEL, HOUR HEADED STUD, HIGH STRENGTH
Н	COMMUNICATION HANDHOLE	EW	EACH WAY, EMERGENCY	HSS	HOLLOW STRUCTURAL SHAPE
)	CURB INLET CAST-IN-PLACE	EWC	EYE/FACE WASH ELECTRIC WATER COOLER	HT	HEIGHT
РВ	CONCRETE INTERLOCKING PAVER	EWEF	EACH WAY, EACH FACE	HTG HV	HEATING HIGH VOLTAGE
	BALLAST	EWTB	EACH WAY, TOP AND BOTTOM	HVAC	HEATING, VENTILATING AND
RC	CIRCULATION, CIRCULAR CONSTRUCTION JOINT	EXC EXH	EXCAVATION EXHAUST	רויאיב	AIR CONDITIONING
Τ	CIRCUIT	EXP	EXPANSION, EXPOSED	HWD HWL	HARDWOOD HIGH WATER LEVEL
^	CENTERLINE, CLASS, CLOSE	EXIST	EXISTING EXTERIOR EXTERNAL EXTENSION	HYD	HYDRAULIC, HYDRANT
G	CEILING	EXT	EXTERIOR, EXTERNAL, EXTENSION	HZ	HERTZ, CYCLES PER SECOND

INSIDE DIAMETER, INTERIOR DIMENSION INVERT ELEVATION, FOR EXAMPLE INSIDE FACE INTAKE HOOD IMPACT INCH INCLUDE, INCANDESCENT INFLUENT INSTRUMENTATION INSULATION INTERIOR, INTERSECTION INTERMEDIATE, INTERIOR INVERT INTERMEDIATE PRESSURE IRON PIPE SIZE INTERNAL PIPE THREAD INSIDE RADIUS, IRON ROD IRRIGATION ISOMETRIC JUNCTION BOX JUNCTION JOINT FILLER JOIST JOINTS KIP KNEE BRACE THOUSAND CIRCULAR MILS KNOCK DOWN KNOCK OUT KIPS PER SQUARE INCH KILOWATT	N NAT NCG NF NIC NOM NPS NPT NPW NTS NWL O OCCPD OF CI OF OI OF OPP OPT OR OR OPP OPT OPT OR OPP OPT OPT OPT OPT OPT OPT OPT OPT OPT
ANGLE, LENGTH, LAVATORY, LINTEL LADDER LAMINATE LATERAL LAG BOLT, POUND LIQUID CHALK AND TACK BOARD LANDING LEADER LIFTING EYE LINEAR FOOT LONG LEFT HAND LINEAR LIQUID LONG LEG HORIZONTAL LONG LEG VERTICAL LIQUID MARKER LECTURE UNIT LANE LONGITUDINAL LOCATION LOW POINT LOW—PRESSURE SODIUM LONG RADIUS LEFT LIMITED LIGHTING	OVFL OVHG OZ P PAR PBD PCC PCF PCT PED PERM PERM PERM PERM PERP PF PF P
LINTEL LIGHTNING LOW VOLTAGE LAMINATED VENEER LUMBER LOUVER LIGHTWEIGHT LIGHTWEIGHT CONCRETE LOW WATER LEVEL MIXED AIR MACHINED MAINTENANCE MANUAL MATERIAL MAXIMUM MACHINE BOLT MEMBER MECHANICAL CONTRACTOR, MECHANICAL COUPLING, MOMENT CONNECTION METAL CORNER BEAD MASONRY CONTROL JOINT MODIFIED DOUBLE MECHANICAL JOINT MECHANICAL MEDIUM MANUFACTURER MANHOLE, METAL HALIDE MINIMUM	PLA PLAS PLAT PLBG PLF PNEU POL POS PRC PREFAB PRELIM PRES PRI PROT PS PSI PSI PSIG PT PT PVC
MIRROR MISCELLANEOUS MECHANICAL JOINT MASONRY LINTEL MAIN LUGS ONLY MEMBRANE MASONRY OPENING MODULAR, MODIFY MONUMENT MALE PIPE THREAD MOISTURE—RESISTANT GYPSUM WALLBOARD MARKER MOP SINK MEAN SEA LEVEL MOUNT MASONRY UNIT MULLION MEDIUM VOLTAGE MONITORING WELL	PVMT PW PWD PWJ PZ QT QTR QTR QTY QUAL

NORTH, NEUTRAL NOT APPLICABLE NATURAL, NATIONAL NORMALLY CLOSED NEGATIVE NEAR FACE, NON-FUSED NOT IN CONTRACT NORMALLY OPEN, NUMBER NOMINAL NOMINAL NOMINAL PIPE SIZE NATIONAL PIPE THREAD NON POTABLE WATER NEAR SIDE NOT TO SCALE NORMAL WATER LEVEL OUT TO OUT OUTSIDE AIR, OVERALL ON CENTER OVER CURRENT PROTECTION DEVICE OUTSIDE DIAMETER OPEN END DUCT OUTSIDE FACE, OFFICE FURNISHING OWNER FURNISHED CONTRACTOR INSTALLED OWNER FURNISHED OWNER INSTALLED ORIGINAL GROUND OVERHEAD OPENING OPPOSITE OPTIONAL OUTSIDE RADIUS OVERFLOW ROOF DRAIN ORIGINAL OVERFLOW	R&R R&S R A RB RCPT RECT RECT RESIL RET RESS – PVC RESS – PVC RESS – PVC RESS – PVC RESS – RU RCS – RU
OVERHANG OUNCE PAINT	RS RSP RT RVT
PUBLIC ADDRESS PARALLEL, PARAPET PANIC BAR, PULL BOX PARTICLE BOARD POINT OF CURVE, PIECE, PRECAST POINT OF CURVE, PIECE, PRECAST POINT OF CURVE, PIECE, PRECAST POINT OF COMPOUND CURVATURE POUNDS PER CUBIC FOOT PERCENT PLAIN END PEDESTAL PENETRATION PERFORATED PERMANENT PERPENDICULAR POWER FACTOR PREFACED MASONRY UNIT PHASE POINT OF INTERSECTION PACKAGE PLATE, PROPERTY LINE, PRECAST LINTEL PLASTIC PLASTIC PLASTIC PLASTER PLATFORM PLUMBING POUNDS PER LINEAR FOOT PNEUMATIC POLISH POSITIVE, POSITION POLYPROPYLENE, POWER POLE POINT OF REVERSE CURVATURE PREFINISHED PREFABRICATED PRELIMINARY PREPARE PRESSURE PRIMARY PROPERTY, PROPOSED PROTECTION PIPE SUPPORT POUNDS PER SQUARE INCH ABSOLUTE POUNDS PER SQUARE INCH ABSOLUTE POUNDS PER SQUARE INCH GAGE PRESTRESSED POINT, POINT OF TANGENCY PARTITION POLYVINYL CHLORIDE, POINT OF VERTICAL CURVE PAVEMENT POTABLE WATER PLYWOOD PLYWOOD PLYWOOD WEB JOIST PIEZOMETER	RY SAMU MENTAL SECTION OF SECTION
QUANTITY QUALITY	T&B T&G T TA TAN TBM TCE TEF TEMP TG THD

REMOVE AND REPLACE REMOVE AND SALVAGE RADIUS, REGISTER, RISER RETURN AIR RESILIENT BASE, ROCK BERM REINFORCED CONCRETE PIPE RECEPTACLE ROOF DRAIN, ROAD RECESS RECEIVED RECTANGULAR REDUCER REFERENCE REINFORCING REMOVE REQUIRED RESILIENT RETAINING, RETURN REVISION, REVERSE RESILIENT FLOORING ROOFING REFLECTED, REFLECTOR ROUGH RIGID GALVANIZED STEEL PVC COATED RGS RELIEF HOOD, RIGHT HAND, RELATIVE HUMIDITY REQUIRED LAP RELIEF AIR ROUND RUNNING ROUGH OPENING RIGHT-OF-WAY REVOLUTIONS PER MINUTE RAILROAD RAW SEWAGE ROCK SLOPE PROTECTION RESILIENT VINYL TILE READY SOUTH, SINK, SEWAGE SUPPLY AIR SOUND-ABSORBING MASONRY UNIT SANITARY SPLASH BLOCK SOLID CORE SCHEDULE SCHEMATIC SCREEN SLIDE GATE STEEL/ALUMINUM EDGE SECONDARY, SECONDS SECTION SEPARATE SQUARE FOOT, SILT FENCE SHEET GLASS, SEALANT GROOVE, SHOWER SHEET SHEATHING SILENCE SIMILAR SLAB JOINT SLOPE, STEEL LINTEL SLUICE GATE SLOTTED SLEEVE SEAMLESS SLAB ON GRADE SOUNDPROOF, STANDPIPE SPACING SPECIFICATION SINGLE POLE SINGLE THROW SET POINT SQUARE SHORT RADIUS SERVICE SINK STAINLESS STEEL STREET STATION STANDARD STIFFENER STIRRUP STEEL STORM SEWER STORAGE STRUCTURAL, STRAIGHT SUBSTITUTE SUCTION SUSPENDED SQUARE YARD SYMBOL SYMMETRICAL SYNTHETIC SYSTEM TOP AND BOTTOM TONGUE AND GROOVE TILE, TREAD TOILET ACCESSORY, TEMPERED AIR TANGENT TEMPORARY BENCHMARK TEMPORARY CONSTRUCTION EASEMENT TROWELED EPOXY FLOORING

4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264 Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project

MARK DATE DESCRIPTION

PROJECT NUMBER 10402813

ORIGINAL ISSUE PROJECT MANAGER Ngoc Kim Le, P.E. PROJECT DESIGNER PROJECT ARCHITECT LANDSCAPE ARCHITECT **CIVIL ENGINEER** STRUCTURAL ENGINEER MECHANICAL ENGINEER **ELECTRICAL ENGINEER** INTERIOR DESIGNER **EQUIPMENT PLANNER** WAYFINDING DRAWN BY G.S. Fuller



SHEET NAME

DORRANCE LANE ABBREVIATIONS

N/A

SCALE

FILE NAME

ABBREVIATIONS

SHEET NUMBER

THD THK

THREAD THICK

TOP OF GRATE

TEMPORARY, TEMPERATURE

GENERAL NOTES:

OF CONTRACT DRAWINGS.

THREASH

TKBD

TOB

TOD

TOF

TOG

TOM

TOPO

TOW

TRANS

TRD

TYP

UNFN

UNO

UTIL

VAC

VAR

VCP

VCT

VENT

VERT

VERTS

VTR

VWC

WLD

WS

WSE

WSCT

WTHP

WWF

WWL

XSECT

THREASHOLD

TACK BOARD

TOP OF DUCT

TOP OF FOOTING

TOP OF GRATING

TOP OF MASONRY

TOE OF SLOPE

TOP OF PLATE

TOPOGRAPHY

TOP OF WALL

TRANSOM

TYPICAL

ULTIMATE

UTILITY

UNFINISHED

VOLT AMPERE

VALVE BOX

VELOCITY

VERTICAL

VOLUME

WITHOUT

WOOD BASE

WOOD, WIDTH

WROUGHT IRON

WEATHERPROOF

WELDED

WIRE MESH

WAINSCOT

VENTILATION

VERTICAL GRAIN VERIFY IN FIELD

VERTICAL CURVE

VITRIFIED CLAY PIPE

VINYL COMPOSITION TILE,

VERTICAL CENTERLINE

VERTICAL REINFORCING

VERSUS, VAPOR SEAL

VENT THROUGH ROOF

VINYL WALL COVERING

WIDE FLANGE BEAM

VERTICAL POINT OF CURVATURE

VERTICAL POINT OF TANGENCY

VERTICAL POINT OF INTERSECTION

WATT, WEST, WIDE, WINDOW, WIRE,

WATER CLOSET, WATER COLUMN

WIDE FLANGE, WASH FOUNTAIN

WIRE GLASS, WATER GAGE

WATER LEVEL, WATER LINE

WATERSTOP, WATER SURFACE

WATERPROOF, WORKING POINT

WATER SURFACE ELEVATION

WEIGHT, WATER TIGHT

WELDED WIRE FABRIC

DOUBLE EXTRA STRONG

. THESE ABBREVIATIONS APPLY TO THE ENTIRE SET

2. LISTING OF ABBREVIATIONS DOES NOT IMPLY THAT

. ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE

VARIATIONS OF A WORD. FOR EXAMPLE, "MOD"

ALL ABBREVIATIONS ARE USED IN THE CONTRACT

WASTEWATER LINE

EXPLOSION-PROOF

EXTRA STRONG

CROSS SECTION

YARD HYDRANT

YIELD STRENGTH

WALL HYDRANT, WEEP HOLE

VACUUM

TRANSITION

TRENCH DRAIN

UTILITY EASEMENT

UNDERGROUND

TOP OF BOLT, TOP OF

BANNIR, OF BEAM, TOP OF BERM

TOLERANCE, TOP OF LEDGER

TOP OF SLAB, TOP OF STEEL,

TOE PLATE, TRAP PRIMER

TOILET PAPER DISPENSER

UNLESS NOTED OTHERWISE

VOLT AMPERES REACTIVE

VAPOR BARRIER, VINYL BASE,

VENT, VELOCITY, VOLT

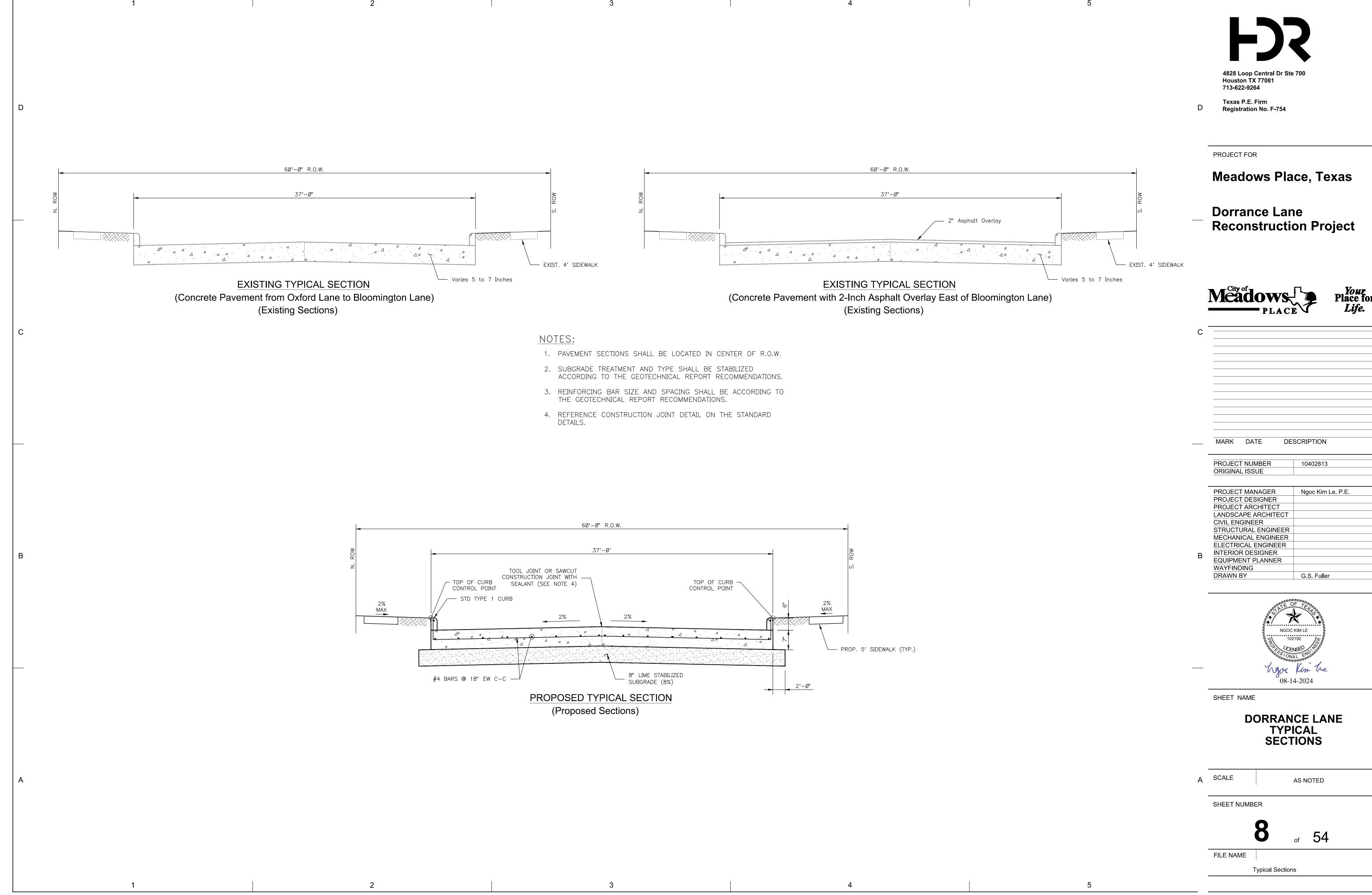
VARNISH, VARIABLE,

TOILET PARTITION, TELEPHONE POLE,

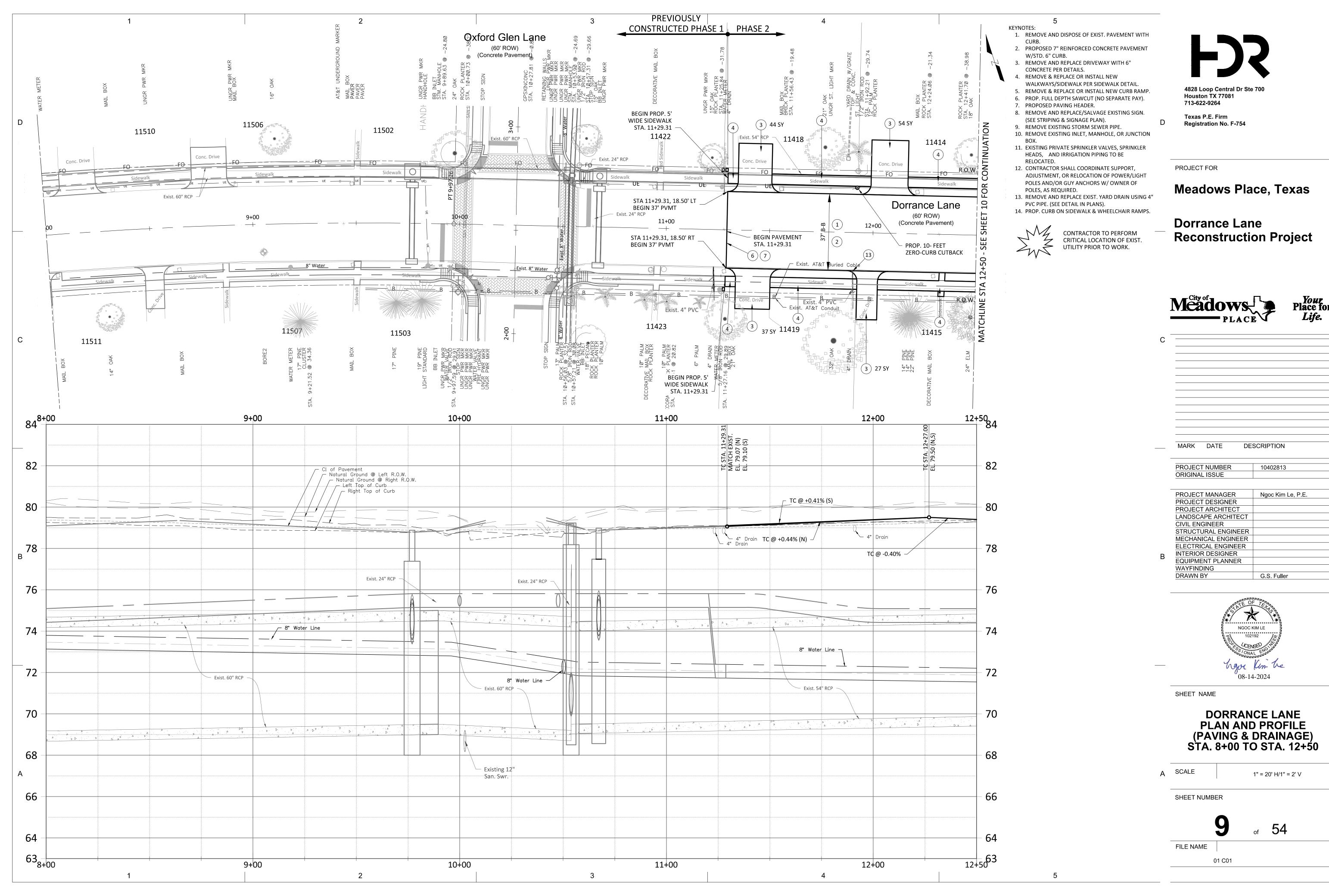
TOPPING, THROUGH PLATE GIRDER

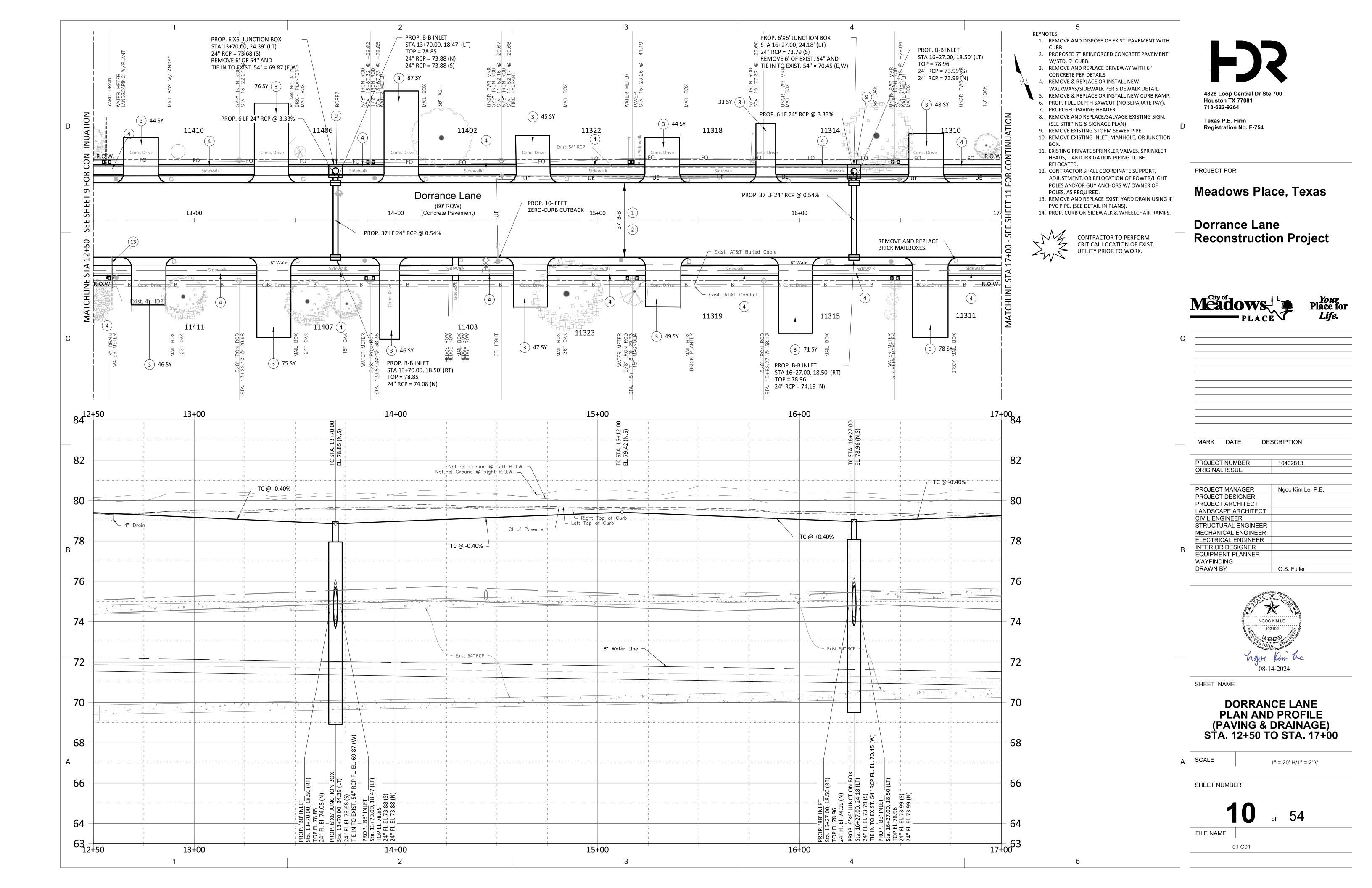
TOP OF CURB, TOP OF CONCRETE

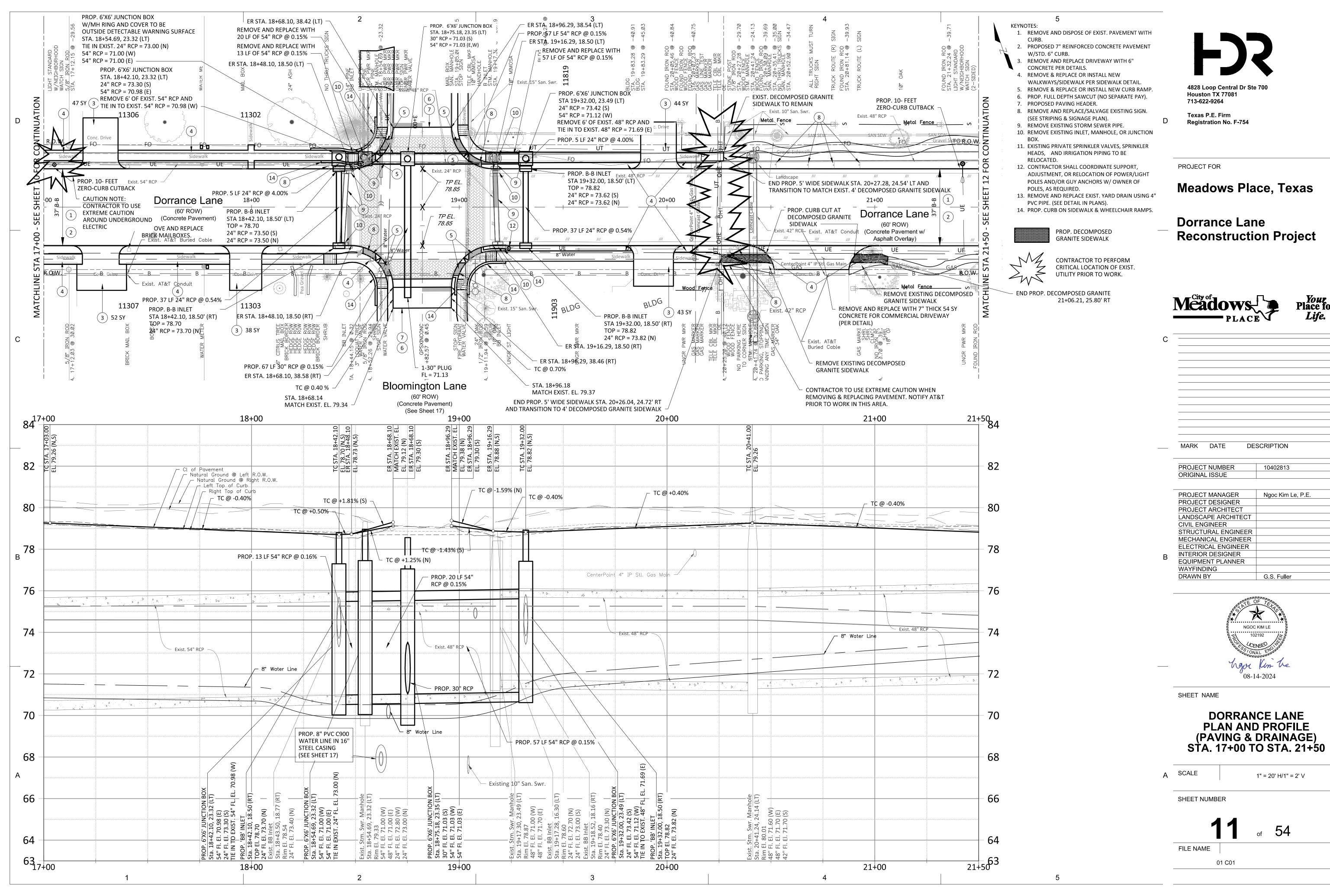
MAY MEAN MODIFY OR MODIFICATION; "INC" MAY MEAN INCLUDED OR INCLUDING AND "REINF" MAY MEAN EITHER REINFORCE OR REINFORCING.

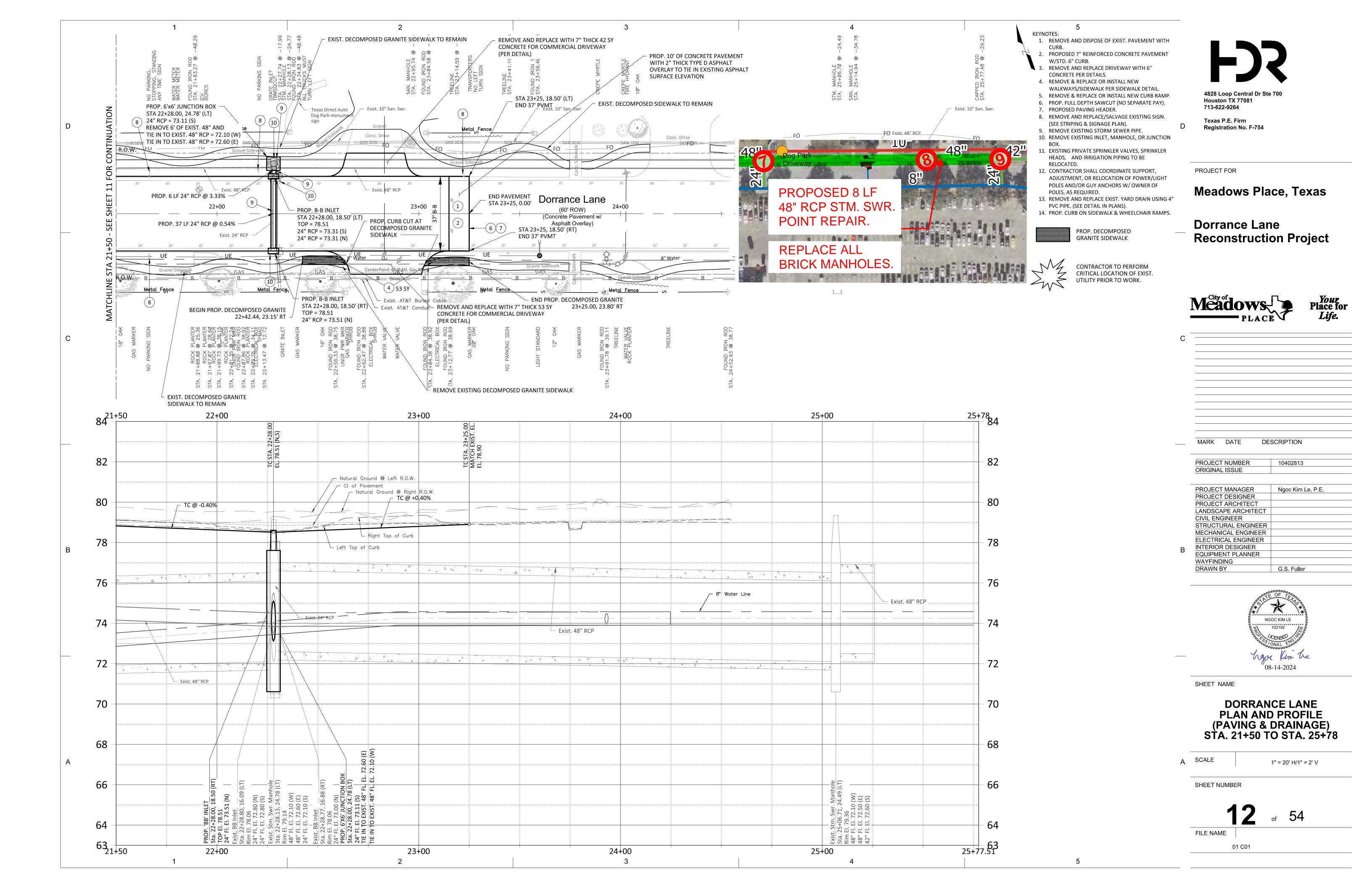


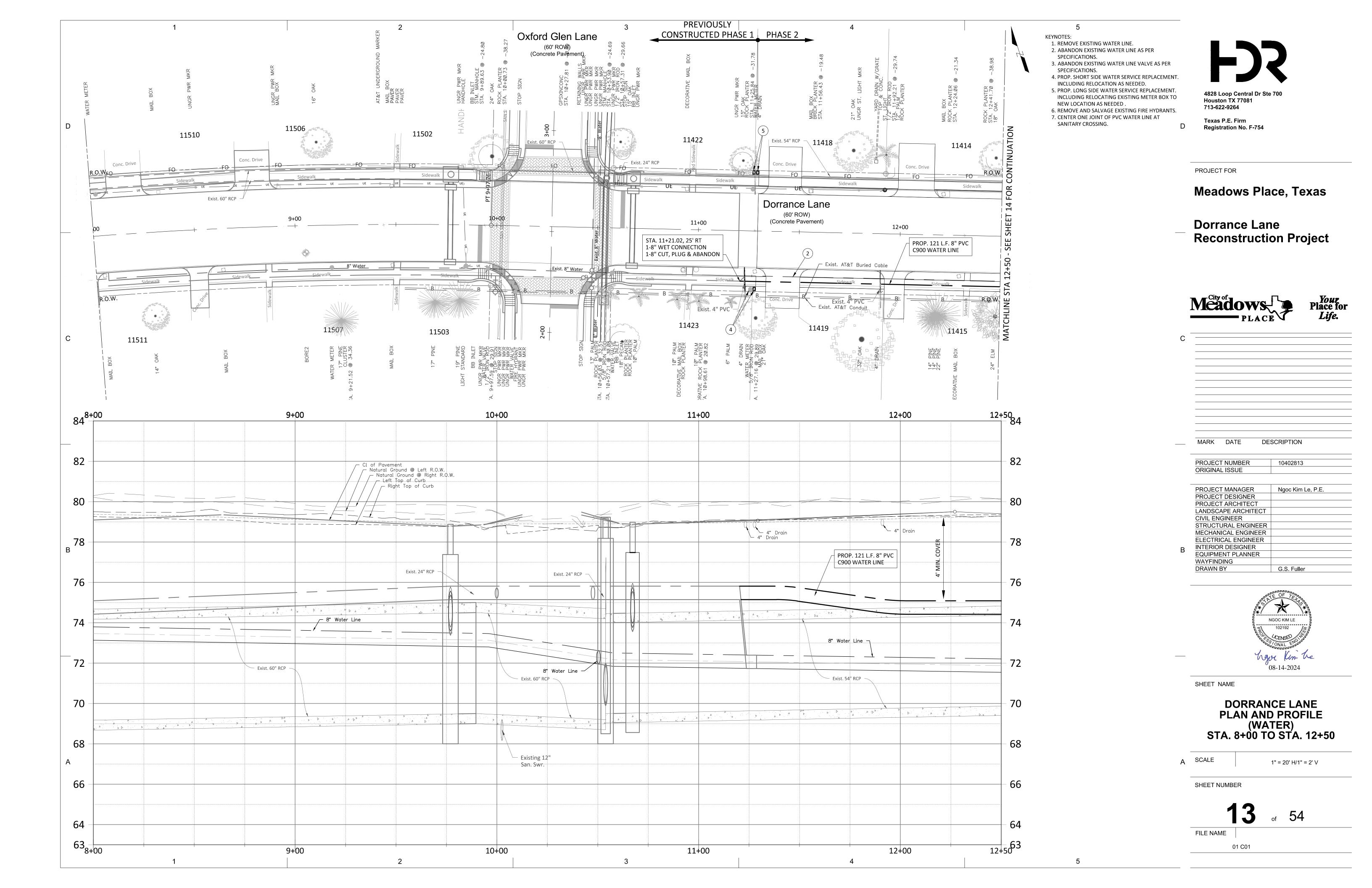


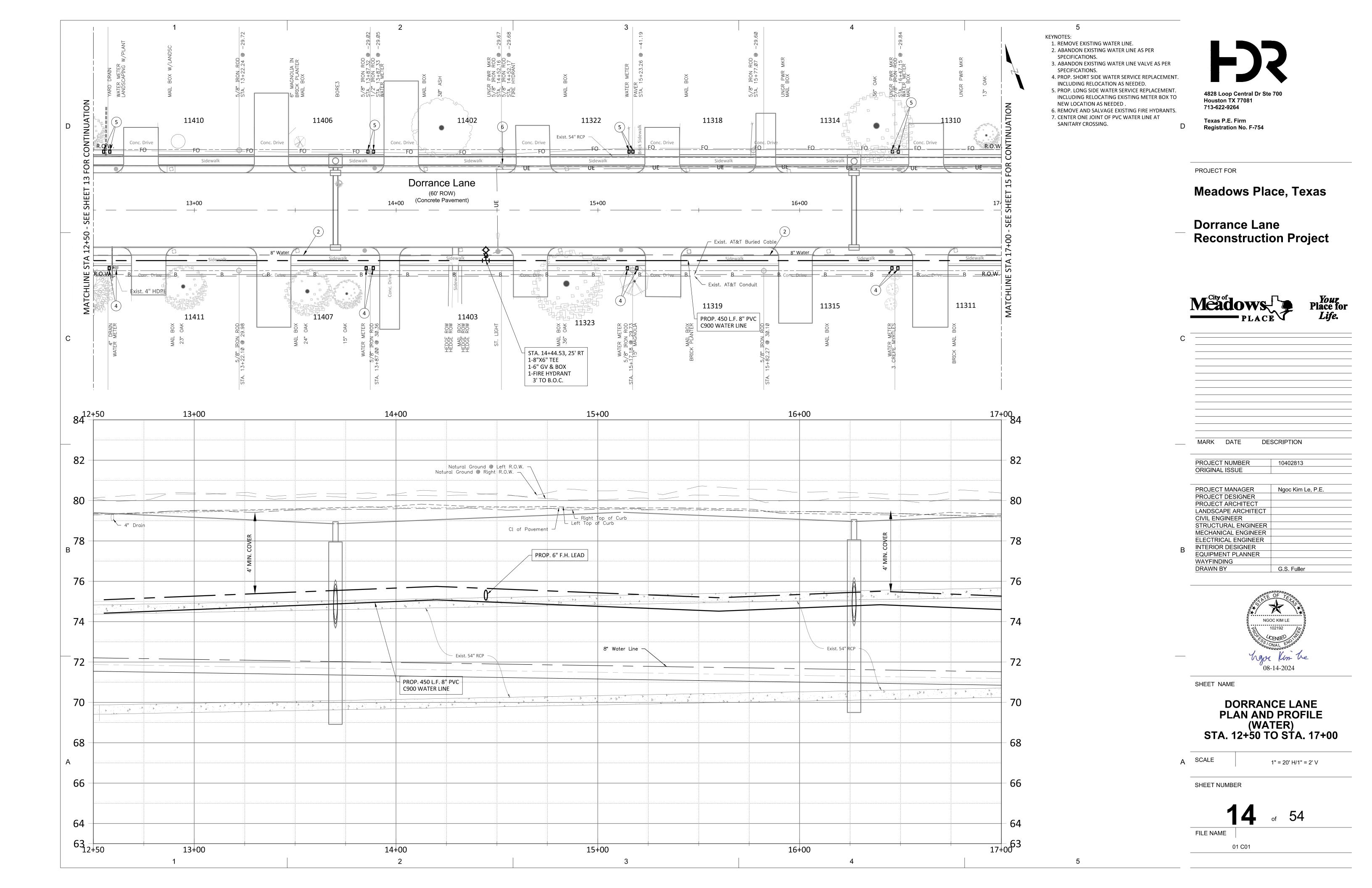


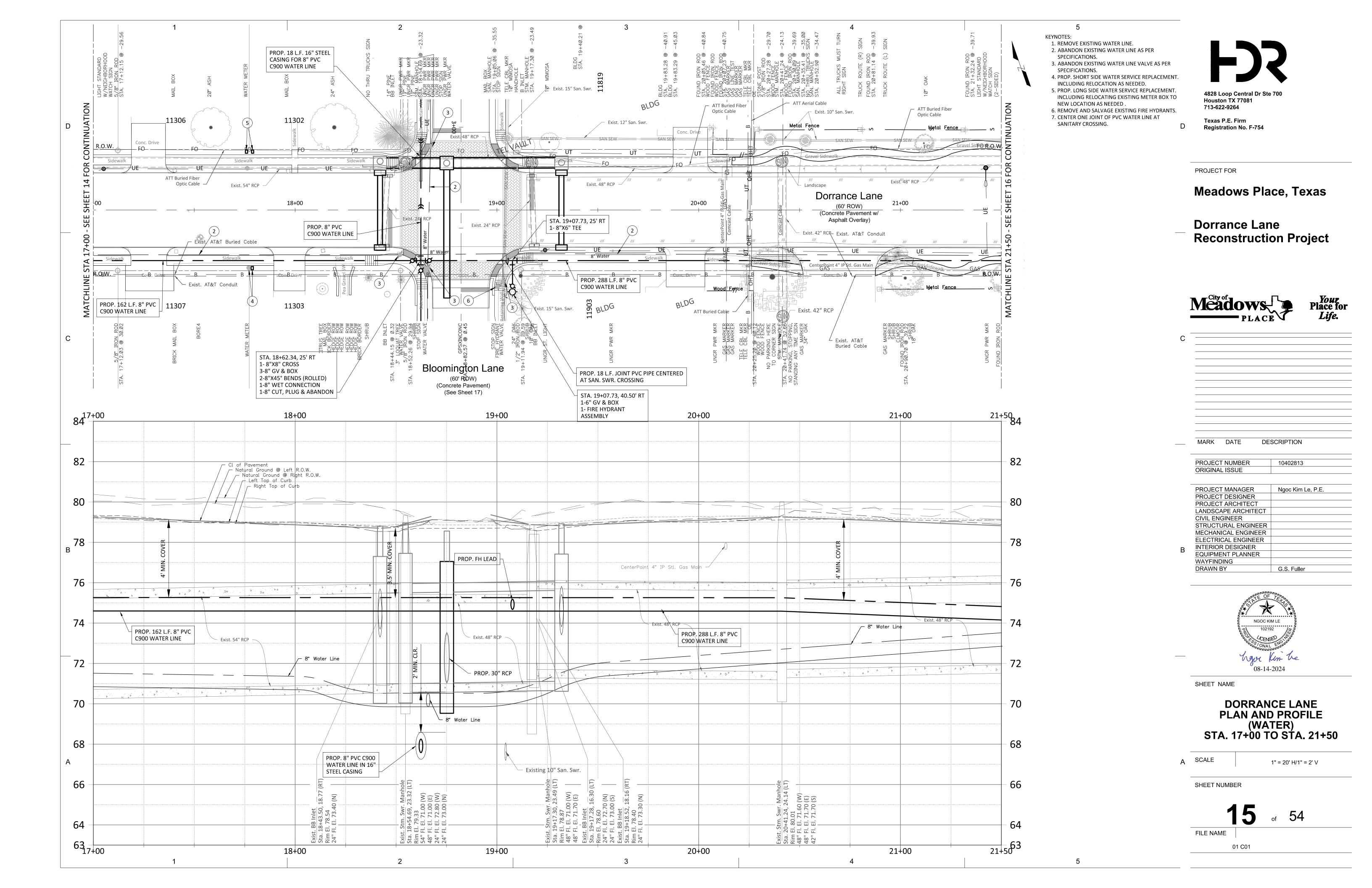


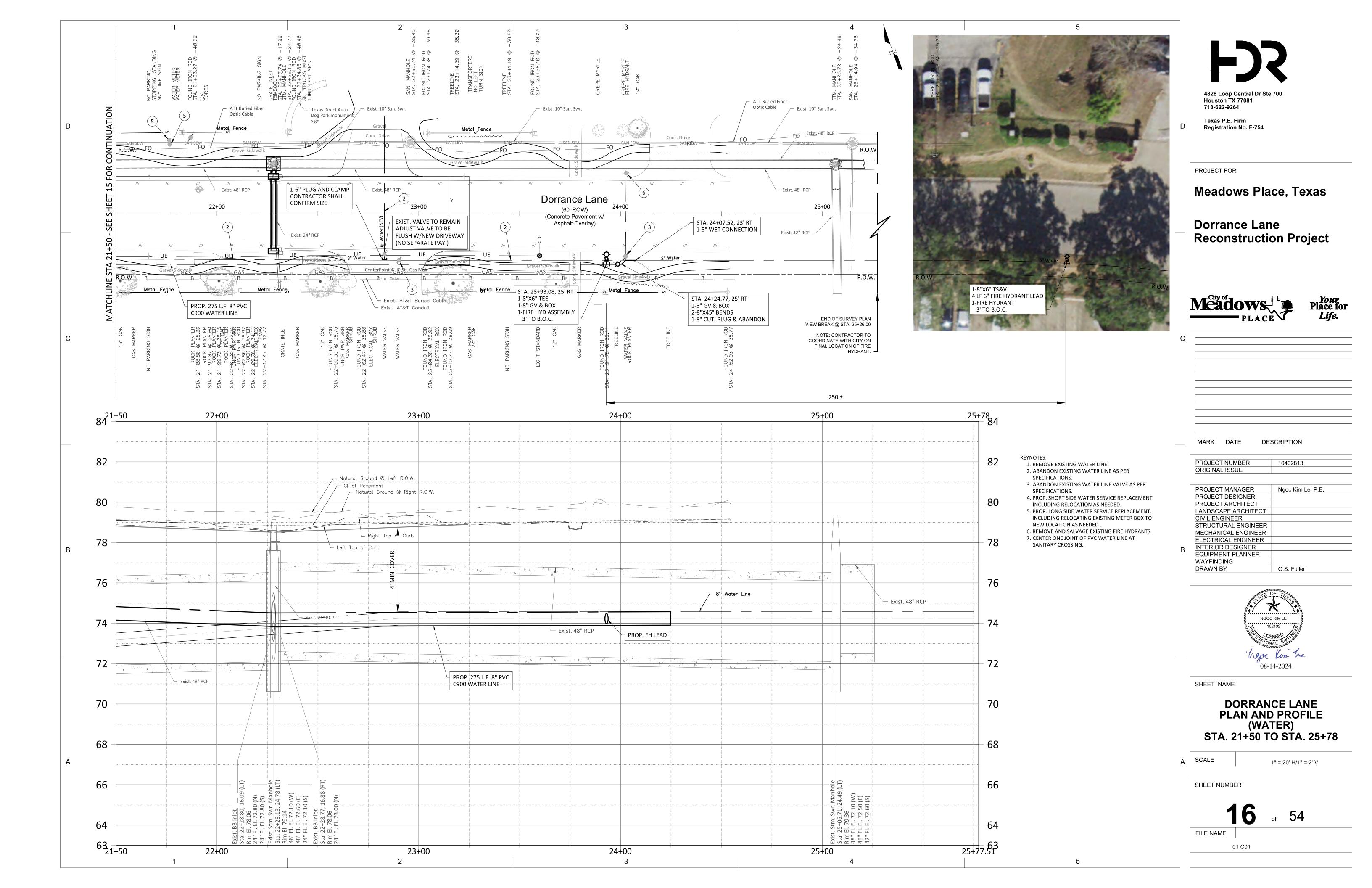


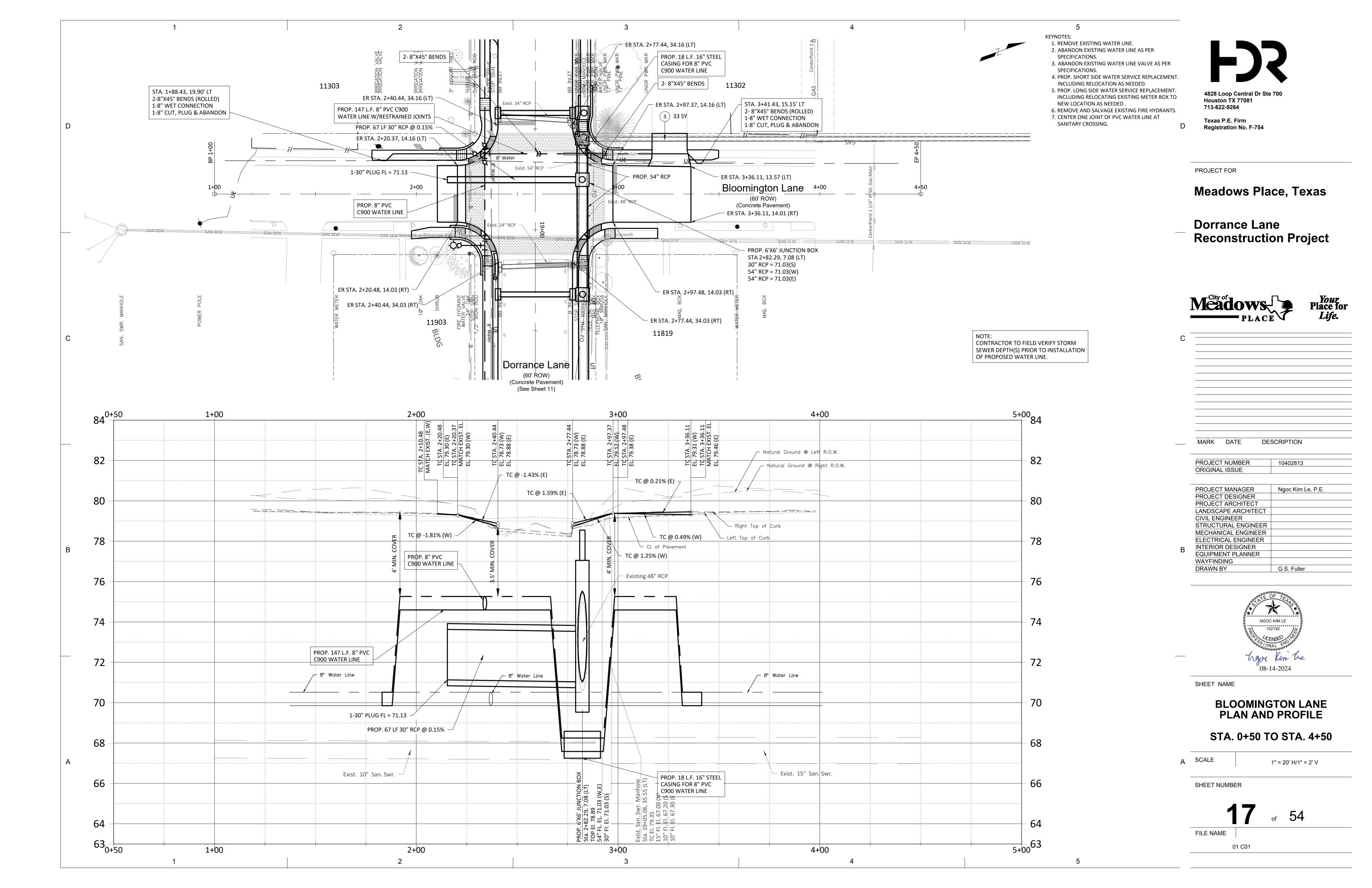


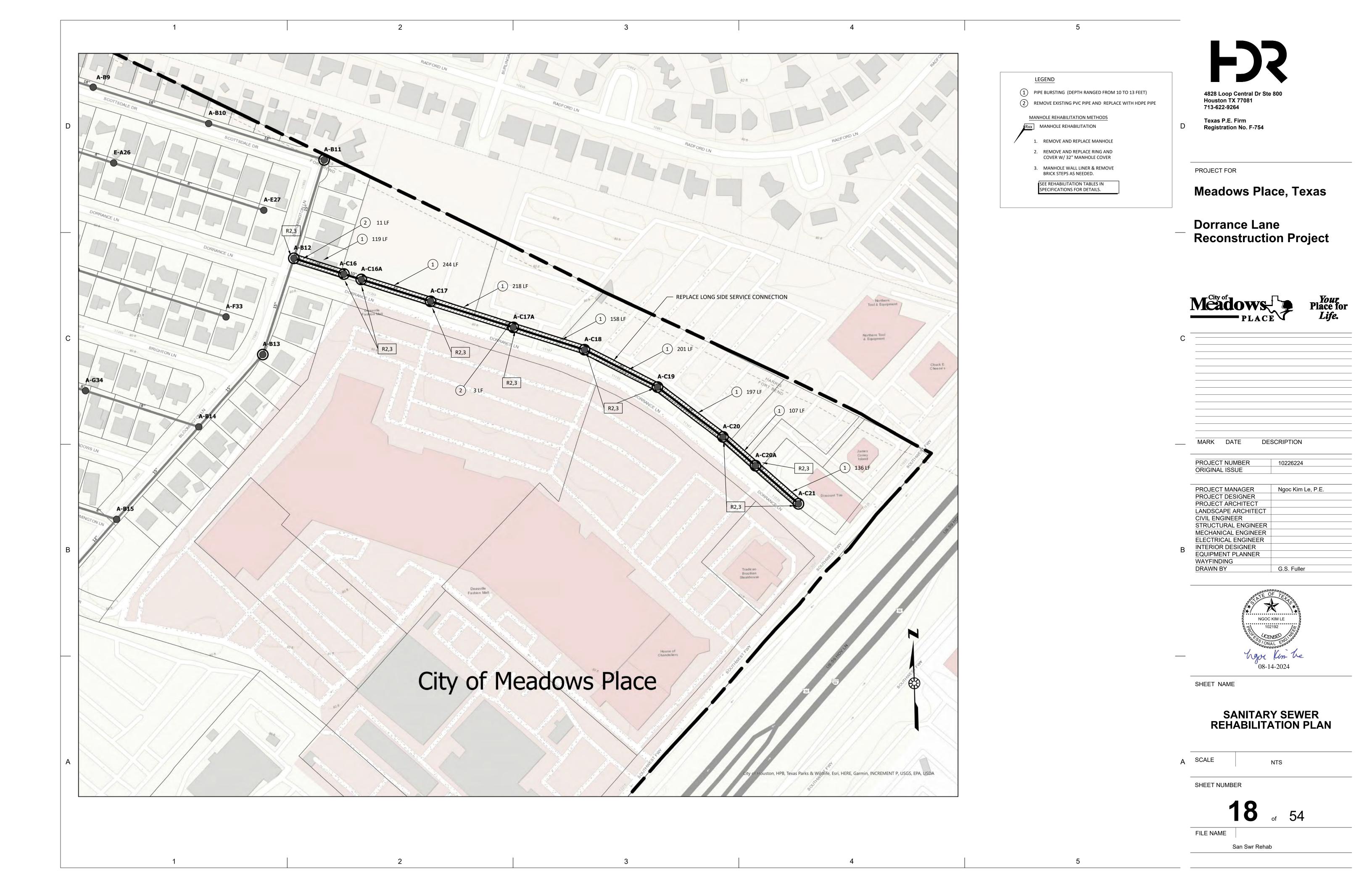












SITE DESCRIPTION

EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: MEADOWS PLACE, TEXAS DORRANCE LANE RECONSTRUCTION FROM OXFORD LANE TO BLOOMINGTON LANE. D PROJECT DESCRIPTION: REPLACEMENT OF TWO—LANE (37—FT WIDE) RESIDENTIAL CONCRETE CURB AND GUTTER PAVEMENT INCLUDING DRIVEWAYS AND SIDEWALKS. PROJECT ALSO INCLUDES REPLACEMENT AND UPGRADE OF WATER LINE, AND INSTALLATION OF STORM SEWER INLETS AND LATERALS. MAJOR SOIL DISTURBING ACTIVITIES: UTILITY & PAVEMENT EXCAVATION, EXISTING CONCRETE REMOVAL.	SOIL STABILIZATION PRACTICES TEMPORARY SEEDING X PERMANENT PLANTING, SODDING, OR SEEDING X MULCHING SOIL RETENTION BLANKET BUFFER ZONES X PRESERVATION OF NATURAL RESOURCES OTHER: DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITY HAS CEASED SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITIES ARE SCHEDULED TO RESUME WITHIN 21 DAYS. STRUCTURAL PRACTICES: X SILT FENCES HAY BALES
TOTAL PROJECT AREA (ROW/ROW) APPROX. AREA TO BE DISTURBED	
TOTAL PROJECT AREA (ROW/ROW) APPROX. AREA TO BE DISTURBED 1.75 ACRES 1.75 ACRES	STAGE II INLETS.
1.75 ACRES	NARRATIVE — SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:
WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): Ø.55 EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: WELL GROOMED RESIDENT YARDS. TO BE 1ØØ PERCENT COVERED WITH ST. AUGUSTINE GRASS IN MAINTAINED RESIDENTIAL ROADSIDE CONDITION. NAME OF RECEIVING WATERS: STREET STORM SEWER SYSTEM TO KIRKWOOD ROAD OUTFALL TO KEEGANS BAYOU.	1. PROTECT EXISTING STORM SEWER SYSTEMS AND INLETS. INSTALL INLET PROTECTION BARRIERS AND TEMPORARY EROSION CONTROL. 2. INSTALL POTABLE WATER LINES. 3. EXCAVATE & CONSTRUCT STORM SEWER, INLETS, AND BACKFILL. 4. REMOVE AND REPLACE PAVEMENT, DRIVEWAYS & SIDEWALKS. 5. PERFORM SANITARY SEWER REHABILITATION. 6. SOD DISTURBED AREAS. 7. WHEN ALL CONSTRUCTION ACTIVITIES ARE COMPLETE AND THE SITE IS STABILIZED AND APPROVED BY THE ENGINEER, REMOVE TEMPORARY STRUCTURAL CONTROL.
A	STORM WATER MANAGEMENT: STORM WATER DRAINAGE WILL BE PROVIDED BY INLETS AND STORM DRAINS. THIS SYSTEM WILL CARRY DRAINAGE WITHIN THE RIGHT—OF—WAY AND EASEMENTS THRU THE STORM SEWERS TO THE EXISTING STORM SEWER TRUNK MAIN.

AINTENANCE:	
	WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE DONE AT THE EARLIEST DATE POSSIBLE, BUT NO LATER THAN 14 CALENDAR DAYS
	AFTER THE SURROUNDING EXPOSED GROUND HAS DRIED SUFFICIENTLY TO
	PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. THE AREAS ADJACENT
	TO CREEKS AND DRAINAGE WAYS SHALL HAVE PRIORITY FOLLOWED BY
	DEVICES PROTECTING STORM SEWER INLETS.
SPECTION:	AN INSPECTION WILL BE PERFORMED BY THE CONTRACTOR EVERY 14 DAYS
	AS WELL AS AFTER EVERY HALF INCH OR MORE OF RAIN (AS RECORDED ON A NONFREEZING RAIN GAUGE TO BE LOCATED AT THE PROJECT SITE). AN INSPECTION AND MAINTENANCE REPORT WILL BE MADE PER EACH INSPECTION.
	BASED ON THE INSPECTION RESULTS, THE CONTROLS SHALL BE REVISED PER
	THE INSPECTION REPORT.
	ASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY
STATE DEBRIS WILL E HAULE	METAL DUMPS. THE DUMPSITE WILL MEET ALL LOCAL AND SOLID WASTE REGULATIONS. ALL TRASH AND CONSTRUCTION S FROM SITE WILL BE DEPOSITED IN THE DUMPSITE. THE DUMP SITE BE EMPTIED AS NECESSARY OR AS REQUIRED, AND THE TRASH WILL BE D TO A LOCAL DUMP. NO CONSTRUCTION WASTE WILL BE BURIED ON SITE. ONSTRUCTION WASTE MATERIAL WILL BE BURIED ON—SITE.
STATE DEBRIS WILL E HAULE NO CO HAZARDOUS AT A M BE HAZ SOLVAT CONCR	SOLID WASTE REGULATIONS. ALL TRASH AND CONSTRUCTION S FROM SITE WILL BE DEPOSITED IN THE DUMPSITE. THE DUMP SITE BE EMPTIED AS NECESSARY OR AS REQUIRED, AND THE TRASH WILL BE D TO A LOCAL DUMP. NO CONSTRUCTION WASTE WILL BE BURIED ON SITE. ONSTRUCTION WASTE MATERIAL WILL BE BURIED ON—SITE. WASTE (INCLUDING SPILL REPORTING): INIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO CARDOUS: PAINTS, ACIDS FOR CLEANING MASONRY SURFACE, CLEANING ES ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, OR ETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH
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STATE DEBRIS WILL E HAULE NO CO HAZARDOUS AT A M BE HAZ SOLVAT CONCRI MAY BE	SOLID WASTE REGULATIONS. ALL TRASH AND CONSTRUCTION S FROM SITE WILL BE DEPOSITED IN THE DUMPSITE. THE DUMP SITE BE EMPTIED AS NECESSARY OR AS REQUIRED, AND THE TRASH WILL BE D TO A LOCAL DUMP. NO CONSTRUCTION WASTE WILL BE BURIED ON SITE. ONSTRUCTION WASTE MATERIAL WILL BE BURIED ON—SITE. WASTE (INCLUDING SPILL REPORTING): INIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO CARDOUS: PAINTS, ACIDS FOR CLEANING MASONRY SURFACE, CLEANING ES ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, OR ETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH E HAZARDOUS, THE SPILL COORDINATOR SHOULD BE CONTACTED IMMEDIATELY. STE: ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION
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DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT

MAY ENTER RECEIVING WATER. DISPOSAL AREAS SHALL NOT BE LOCATED

EMBANKMENT, TEMPORARY BRIDGES, MATTING, FALSE WORK, DEBRIS OR

CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE

CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF

ALL WATERWAYS SHALL BE CLEARED AS SOON AS PRACTICABLE OF TEMPORARY

OTHER OBSTRUCTION PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT

IN ANY WETLAND, WATERBODY OR STREAM BED.

A PART OF THE FINISHED WORK.

POLLUTANTS.



4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264

Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project

Meadows PLACE	Place for Life.
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	MARK DATE DE	SCRIPTION
-	PROJECT NUMBER ORIGINAL ISSUE	10402813
_		
	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
В	INTERIOR DESIGNER	
_	EQUIPMENT PLANNER	



G.S. Fuller

SHEET NAME

WAYFINDING

DRAWN BY

DORRANCE LANE SWPPP TABLE

SCALE
SCALE

SHEET NUMBER

19

54

FILE NAME SWPPP NOTES

4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264 Texas P.E. Firm Registration No. F-754 Oxford Glen Lane (60' ROW) PROJECT FOR **Meadows Place, Texas Dorrance Lane** IPB **Reconstruction Project** 14+00 Dorrance Lane 15+00 (60' ROW) 11+00 12+00 13+00 16+00 SW3P LEGEND Exist. AT&T Conduit EXISTING STORM SEWER PROPOSED STORM SEWER IPB IPB **EXISTING MANHOLE** EXISTING "BB" INLET PROPOSED "BB" INLET PROPOSED JUNCTION BOX INLET PROTECTION BARRIER FOR EXIST. AND PROP. INLETS (PHASE I & II CONSTRUCTION) DESCRIPTION Bloomington Lane ___ - - - - ROW IN PROJECT AREA PROJECT NUMBER 10402813 ORIGINAL ISSUE PROJECT MANAGER PROJECT DESIGNER Ngoc Kim Le, P.E. PROJECT ARCHITECT
LANDSCAPE ARCHITECT
CIVIL ENGINEER
STRUCTURAL ENGINEER MECHANICAL ENGINEER ELECTRICAL ENGINEER INTERIOR DESIGNER
EQUIPMENT PLANNER WAYFINDING DRAWN BY G.S. Fuller 21+00 Dorrance Lane 22+00 20+00 24+00 25+00 25+77.51 NGOC KIM LE Exist. 42" RCP IPB 08-14-2024 SHEET NAME **DORRANCE LANE** SWPPP PLAN Phase 2 A SCALE 1" = 40' SHEET NUMBER FILE NAME SWPPP SHEET

EXTENSION OF

COMPACTED

EMBANKMEN⁻

TFA

SYMBOL

SPECIFY ON PLANS

SYMBOL

FABRIC INTO

TRENCH

SOIL

INLET

STAGE I

WOOD OR

IETAL BEAM

WOOD OR

METAL POST

GENERAL NOTES:

AND II

SECTION A-A

WOOD OR METAL BEAM

INLET PROTECTION BARRIER WITH REINFORCED FILTER FABRIC

INLET PROTECTION BARRIER WITH FILTER ROLLS

FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS

AS APPROVED BY THE ENGINEER.

DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER, AND

INLET PROTECTION BARRIERS

FOR STAGE I INLETS

FIBER ROLL

STAKED OR

WEIGHTED DOWN

W/ GRAVEL BAGS

WOOD OR

METAL POST

WELDED WIRE

| 36" MIN.

FILTER

- FABRIC

BARRIER

STAGE

COMPACTED SOIL

TO PREVENT PIPING

STAKED

FIBER ROLL

SYMBOL

6:1 TYP.

EXISTING

GROUND

8" MIN. GRADED TO PREVENT RUN-OFF FROM LEAVING SITE



Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project



DESCRIPTION

G.S. Fuller

MARK

PROJECT NUMBER 10402813

ORIGINAL ISSUE PROJECT MANAGER

Ngoc Kim Le, P.E. PROJECT DESIGNER PROJECT ARCHITECT LANDSCAPE ARCHITECT CIVIL ENGINEER STRUCTURAL ENGINEER MECHANICAL ENGINEER **ELECTRICAL ENGINEER** INTERIOR DESIGNER

> * NGOC KIM LE 102192

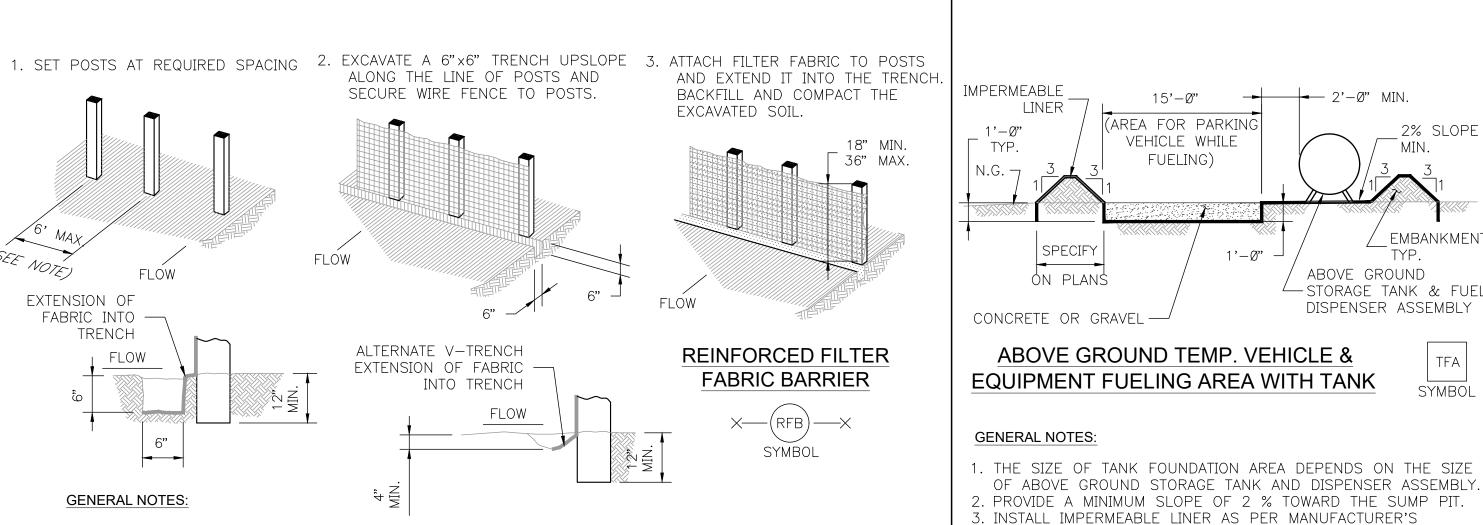
SHEET NAME

DORRANCE LANE SWPPP DETAILS

SCALE NTS

SHEET NUMBER

SWPPP DETAILS

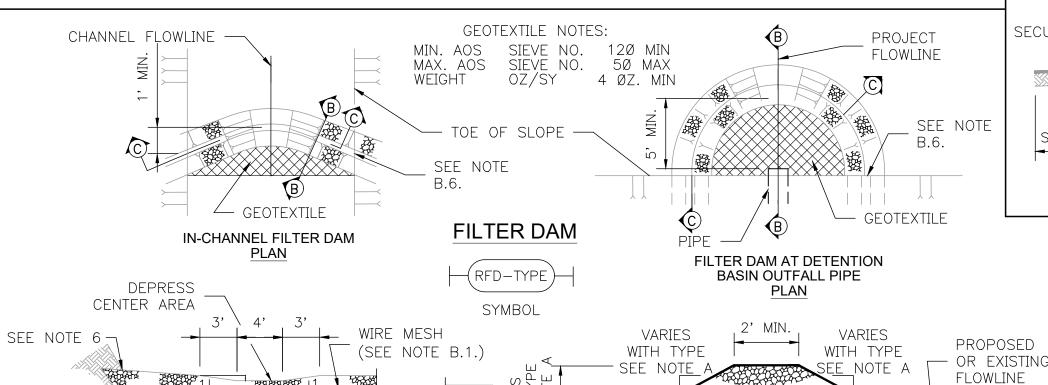


SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.

SECURELY FASTEN FILTER FABRIC TO MESH FENCING.

WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD

TOGETHER, AND ATTACH TO A POST REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH



SEE 5' MIN. GEOTEXTILE WIRE MESH NOTES (SEE NOTE B 1.) SECTION C-C NOTE: ONLY APPLIES FOR SECTION B-B DETENTION BASIN

OUTFALL PIPE

PROTECTION.

A. TYPES OF FILTER DAMS

GRANULAR

EXTENSION OF

FABRIC INTO

TRENCH

GENERAL NOTES:

- 1. TYPE 1 (NON-REINFORCED) a. HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
- b. TOP WIDTH 2 FEET (MINIMUM)
- c. SLOPES 2:1 (MAXIMUM).
- 2. TYPE 2 (REINFORCED). a. HEIGHT — 18—36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
- b. TOP WIDTH 2 FEET (MINIMUM).
- c. SLOPES 2:1 (MAXIMUM). 3. TYPE 3 (REINFORCED)
- a. HEIGHT 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
- b. TOP WIDTH 2 FEET (MINIMUM).
- c. SLOPES 3:1 (MAXIMUM).
- 4. TYPE 4 (GABION)
- a. HEIGHT 3Ø INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
- b. TOP WIDTH 2 FEET (MINIMUM). 5. TYPE 5. AS SHOWN ON THE PLANS.

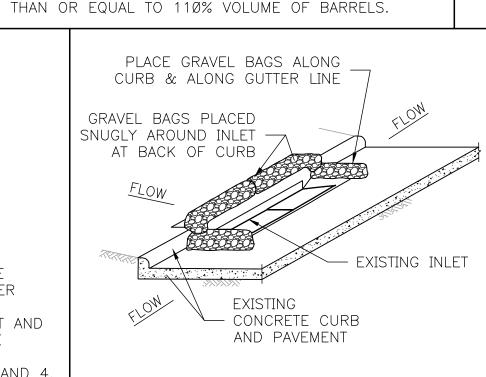
B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.

GRANULAR FILL

- 1. TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
- 2. PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.

SEE GEOTEXTILE

- a. 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4. b. 4-8 INCHES FOR ROCK FILTER DAM TYPE REFER TO GRANULAR FILL IN SPECIFICATION SECTION No. Ø2378
- RIPRAP AND GRANULAR FILL. 3. FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
- 4. IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
- 5. SEE HCFCD SPECIFICATION SECTION NO. Ø2364-FILTER DAMS. 6. EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.



BARREL STORAGE AREA

1. ALTERNATIVELY, STORE BARRELS IN AN ENCLOSED

3 CONSTRUCT BERMED AREA WITH VOLUME GREATER

RECOMMENDATIONS. 60 mil MINIMUM.

. INSTALL IMPERMEABLE LINER AS PER MANUFACTURER'S

| IPB-II |

INLET PROTECTION BARRIERS FOR STAGE II INLETS

GENERAL NOTES:

RECOMMENDATIONS.

_ IMPERMEABLE

GENERAL NOTES:

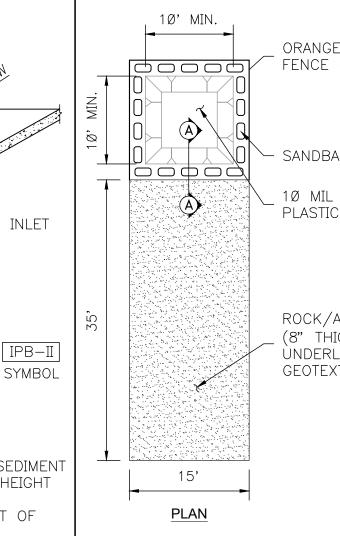
BUILDING OR SHED.

LINER

SPECIFY ON PLANS

SECURE :

- I. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE—THIRD THE HEIGHT OF THE BARRIER.
- 2. GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.



WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

ROCK/AGGREGATE THE STABILIZED CONSTRUCTION EXIT 10 MIL WHEN SHOWN ON THE CONSTRUCTION DRAWINGS PLASTIC LINING WIDEN OR LENGTHEN STABILIZED AREA TO CONCRETE WASHOUT AREA GEOTEXTILE — SECTION A-A CTW SYMBOL DRIVING SURFACE. ORANGE SAFETY FENCE ON 3 SIDES WIDTH FOR TWO WAY TRAFFIC. GENERAL NOTES: PLYWOOD 48"x24" PAINTED WHITE 1. POST A SIGN READING "CONCRETE SANDBAG WASHOUT BLACK LETTERS PIT" NEXT TO THE PIT. WOOD POST 4" HEIGHT 2. VERBALLY INSTRUCT THE CONCRETE TRUCK 3"×3"×8' PLASTIC LINING DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT AND NOWHERE ELSE. CONCRETE 3. UPON THE CONCRETE SETTING UP (CURING, WASHOUT DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND PIT ROCK/AGGREGATE DISPOSED OF PROPERLY BY THE (8" THICK MIN.) CONTRACTOR. AFTER REMOVAL OF THE SCREW UNDERLAID WITH CONCRETE WASTE, THE WASHOUT PIT SHALL GEOTEXTILE BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TØ IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS. 4. CONCRETE WASHOUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY. 5. CONSTRUCT ENTRY ROAD AND BOTTOM OF (OR EQUIVALENT)

CONSTRUCTION WORK ZONE PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC RIGHT-OF-WAY

50' MIN.

PROFILE

(CRUSHED CONCRETE)

IS PERMITTED)

— 50'−0" MIN.

COARSE AGGREGATE - 3" TO 5"

GRANULAR FILL. BULL ROCK

SEPARATION GEOTEXTILE

FABRIC FOR FULL WIDTH AND LENGTH OF EXIT

STABILIZED CONSTRUCTION ACCESS

SC-1 SYMBOL

GENERAL NOTES:

MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.

CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS,

STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS

ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING

5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED

6. OR WHEN SURFACE BECOMES PACKED WITH MUD. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN

MINIMUM 14' WIDTH FOR ONE WAY TRAFFIC AND 20'

trave kin he 08-14-2024

EQUIPMENT PLANNER

WAYFINDING

DRAWN BY

		1	

FILE NAME

GENERAL TRAFFIC CONTROL NOTES:

- 1. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLAN" DURING CONSTRUCTION THAN WHAT IS OUTLINED IN CONTRACT DRAWINGS HE/SHE SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT AN ALTERNATIVE SET OF PLANS TO PLAN REVIEW FOR APPROVAL THREE WEEKS PRIOR TO BEGINNING CONSTRUCTION. THESE PLANS SHALL BE DRAWN TO SCALE AND SEALED BY A P.E. IN THE STATE OF TEXAS.
- 2. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TXMUTCD - LATEST EDITION WITH REVISIONS) DURING CONSTRUCTION. FOR A 30 MPH ROADWAY, SIGNS SHALL BE PLACED MIN. 120' APART PER MINIMUM SIGN SPACING DISTANCE 'X' FROM "TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL" DETAIL.
- 3. CONTRACTOR SHALL NOTIFY CITY 72 HOURS PRIOR TO INSTALLING TRAFFIC CONTROL DEVICES.
- 4. THE TCP PLAN SHALL BE COORDINATED WITH ALL LOCAL AGENCIES AND SERVICES THAT MAY BE IMPACTED BY THE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO EMERGENCY RESPONSE AGENCIES SUCH AS CITY POLICE DEPARTMENT, FIRE DEPARTMENT, TRASH PICKUP, USPS, SCHOOLS, AND TXDOT.
- 5. NO WORK WILL BE ALLOWED ON SATURDAYS OR HOLIDAYS, WITHOUT PRIOR AUTHORIZATION BY CITY STAFF.
- 6. CONTRACTOR SHALL CONSTRUCT INTERSECTIONS ONE QUARTER AT A TIME TO MAINTAIN ACCESS. IF APPROVED FOR STREET CLOSURES, CONTRACTOR SHALL NOT HAVE ADJACENT INTERSECTION STREETS CLOSED AT THE SAME TIME.
- 7. CONTRACTOR SHALL LIMIT CONSTRUCTION ZONE NOT TO EXCEED 500 LF FOR REMOVAL AND REPLACEMENT OF PAVEMENT TO MINIMIZE RESIDENCES' INCONVENIENCE.
- 8. THE CONTRACTOR SHALL NOT STORE ANY CONSTRUCTION MATERIALS IN SUCH A MANNER AS TO OBSTRUCT VEHICLE DRIVER SIGHT DISTANCES.
- 9. ALL SIGNS, WARNING DEVICES, AND BARRICADES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ACTS OF VANDALISM OR ACCIDENT. THE CONTRACTOR SHALL INSURE THAT ALL BARRICADES, SIGNS, CHANNELIZING DEVICES, WARNING LIGHTS, TRAFFIC HANDLING DEVICES, AND TEMPORARY AND EXISTING PAVEMENT MARKINGS ARE MAINTAINED IN A CLEAN FUNCTIONAL CONDITION AT ALL TIMES.
- 10. THE CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS WHICH ARE IN CONFLICT WITH THE CONSTRUCTION SIGNS.
- 11. NOTHING IN THESE NOTES OR PLANS SHALL RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT; INCLUDING SAFETY OF ALL MODES OF TRANSPORTATION, PERSONS, AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS. PROJECT SITE AND PROPOSED IMPROVEMENTS TO BE MAINTAINED AND CONTRACTOR TO CLEAN UP AT THE END OF EACH DAY AS APPROVED BY THE ENGINEER AND CITY.
- 12. THE CITY HAS THE RIGHT TO DEMAND THE INSTALLATION OF ADDITIONAL TRAFFIC CONTROL DEVICES OR MODIFICATIONS OF THESE PLANS AND NOTES, AS DEEMED NECESSARY TO PROMOTE THE SAFE AND ORDERLY FLOW OF TRAFFIC, INCLUDING PEDESTRIANS AND BICYCLES, THROUGH THE CONSTRUCTION WORK ZONE. THE CONTRACTOR SHALL COMPLY WITH THESE ADDITIONAL REQUESTS OR MODIFICATIONS WITH DUE DILIGENCE.
- 13. WHEN ENTERING OR LEAVING ROADWAYS CARRYING PUBLIC TRAFFIC, THE CONTRACTOR'S EQUIPMENT WHETHER EMPTY OR LOADED SHALL IN ALL CASES YIELD TO PUBLIC TRAFFIC WITH ASSISTANCE OF CONTRACTOR PROVIDED CERTIFIED FLAGGER/OFF-DUTY OFFICER.
- 14. ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES AS MUCH AS POSSIBLE. ADDITIONAL CONES AND DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION ZONE. A MINIMUM OF A 10' TRAVEL LANE SHALL BE MAINTAINED ACROSS THE DRIVEWAYS, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY OF MEADOWS PLACE.
- 15. CONTRACTOR SHALL PROVIDE A TEMPORARY DRIVEWAY FOR RESIDENTS UNTIL THE DRIVEWAY HAS BEEN REPLACED. THIS SHALL BE INCIDENTAL TO THE TRAFFIC CONTROL PAY ITEM.
- 16. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE RESIDENTS A MINIMUM OF 7 DAYS PRIOR TO WORKING IN FRONT OF THEIR PROPERTY.
- 17. SPILLAGE RESULTING FROM HAULING OPERATIONS ALONG OR ACROSS ANY PUBLIC TRAVELED WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- 18. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE PROJECT AT ALL TIMES.
- 19. CONTRACTOR SHALL COORDINATE ACCESS LIMITATIONS WITH BUSINESSES ADJACENT TO AND ALONG DORRANCE LANE.

4828 Loop Central Dr Ste 700 Houston TX 77081

Texas P.E. Firm Registration No. F-754

713-622-9264

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project



MARK DATE DESCRIPTION

PROJECT NUMBER

	ORIGINAL ISSUE	
	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
В	INTERIOR DESIGNER	
5	EQUIPMENT PLANNER	
	WAYFINDING	
	DRAWN BY	G.S. Fuller

10402813



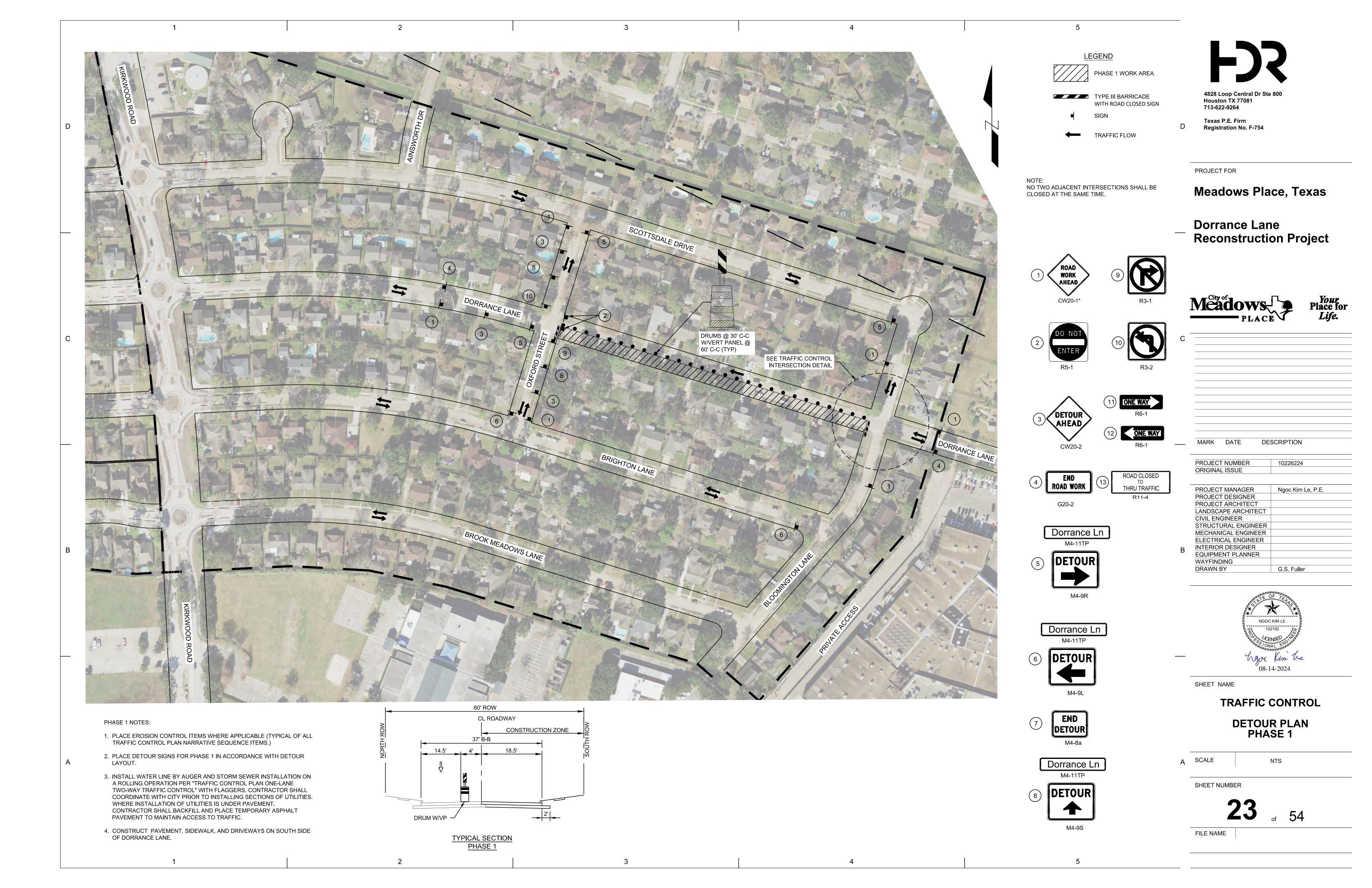
SHEET NAME

TRAFFIC CONTROL PLAN **GENERAL NOTES**

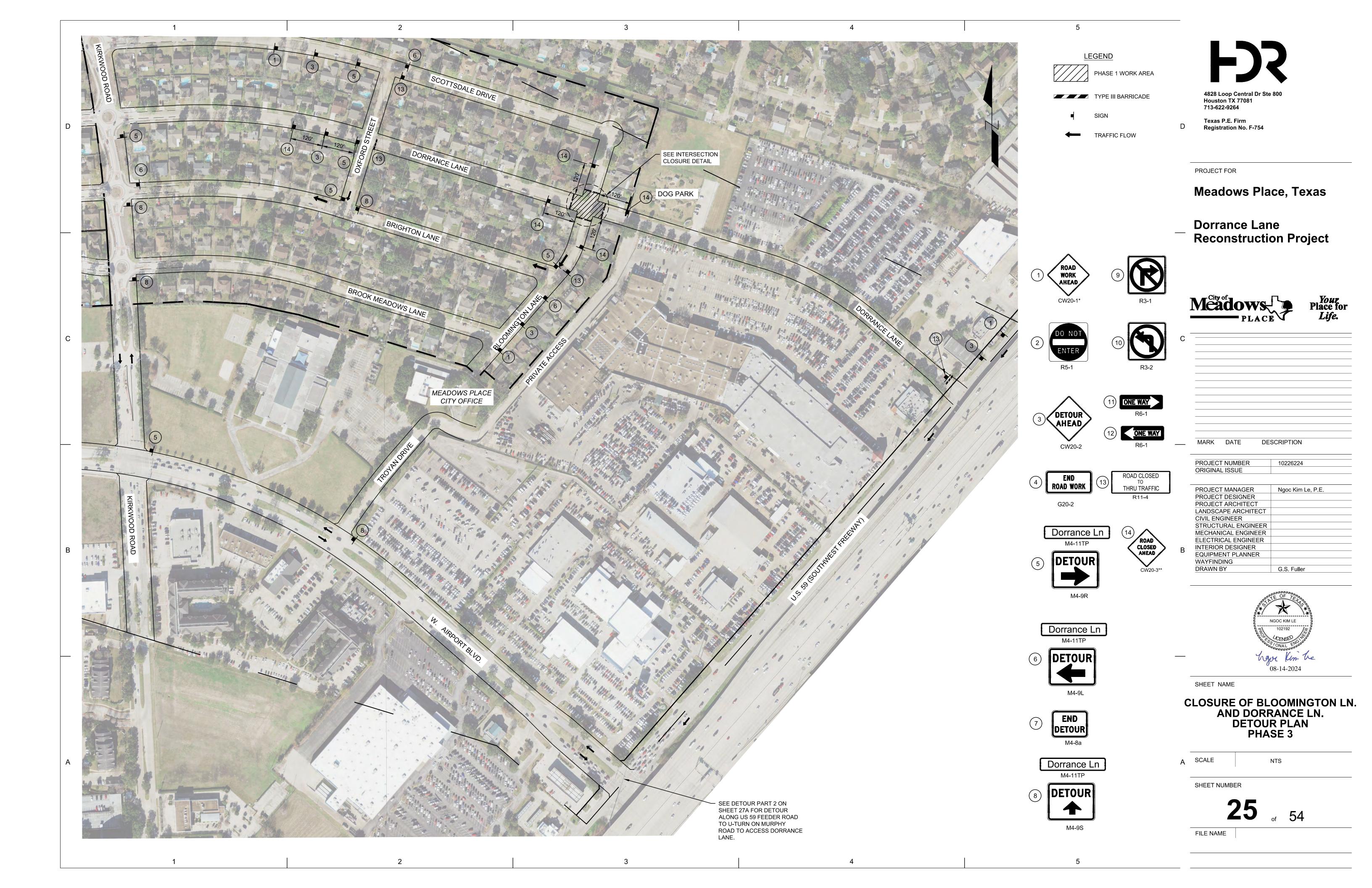
SCALE

SHEET NUMBER

FILE NAME TCP GEN NOTES







INTERSECTION CLOSURE DETAIL

PHASE 3 NOTES:

- 1. PLACE EROSION CONTROL ITEMS WHERE APPLICABLE (TYPICAL OF ALL TRAFFIC CONTROL PLAN NARRATIVE SEQUENCE ITEMS.)
- 2. PLACE DETOUR SIGNS FOR PHASE 3 IN ACCORDANCE WITH DETOUR
- 3. INSTALL WATER LINE AND STORM SEWER INSTALLATION. CONTRACTOR SHALL COORDINATE WITH CITY PRIOR TO INSTALLING SECTIONS OF UTILITIES.
- 4. CONSTRUCT STORM SEWER, PAVEMENT, SIDEWALK, AND DRIVEWAYS ON THE ENTIRE INTERSECTION OF BLOOMINGTON LANE.

<u>LEGEND</u> PHASE 1 WORK AREA TYPE III BARRICADE

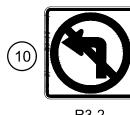




- CLOSED AT THE SAME TIME.
- 3. CONTRACTOR AND CITY TO COORDINATE WITH VROOM FULFILLMENT SHIPPING



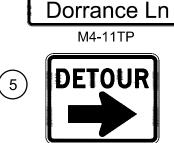












Dorrance Ln M4-11TP





DESCRIPTION

10226224

G.S. Fuller

Ngoc Kim Le, P.E.

CLOSURE OF BLOOMINGTON LN. AND DORRANCE LANE NOTES AND DETAIL PHASE 3

Dorrance Ln M4-11TP

DETOUR



SHEET NUMBER

NTS

FILE NAME

4828 Loop Central Dr Ste 800 Houston TX 77081 713-622-9264

Texas P.E. Firm Registration No. F-754

Dorrance Lane

Meadows T

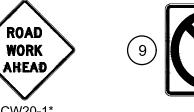
Meadows Place, Texas

Reconstruction Project

PROJECT FOR

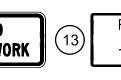
GENERAL NOTES:

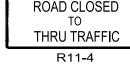
- 1. NO TWO ADJACENT INTERSECTIONS SHALL BE
- 2. NO TRUCK TRAFFIC ALLOWED IN RESIDENTIAL
- TERMINAL, ADJACENT CAR DEALERSHIPS AND BUSINESSES REGARDING SIGNAGE, TRUCK ROUTING, AND ACCESS.

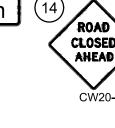




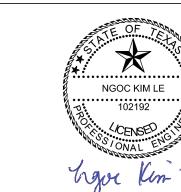












SHEET NAME

MARK

PROJECT NUMBER

PROJECT MANAGER

PROJECT DESIGNER PROJECT ARCHITECT

LANDSCAPE ARCHITECT CIVIL ENGINEER STRUCTURAL ENGINEER

MECHANICAL ENGINEER ELECTRICAL ENGINEER

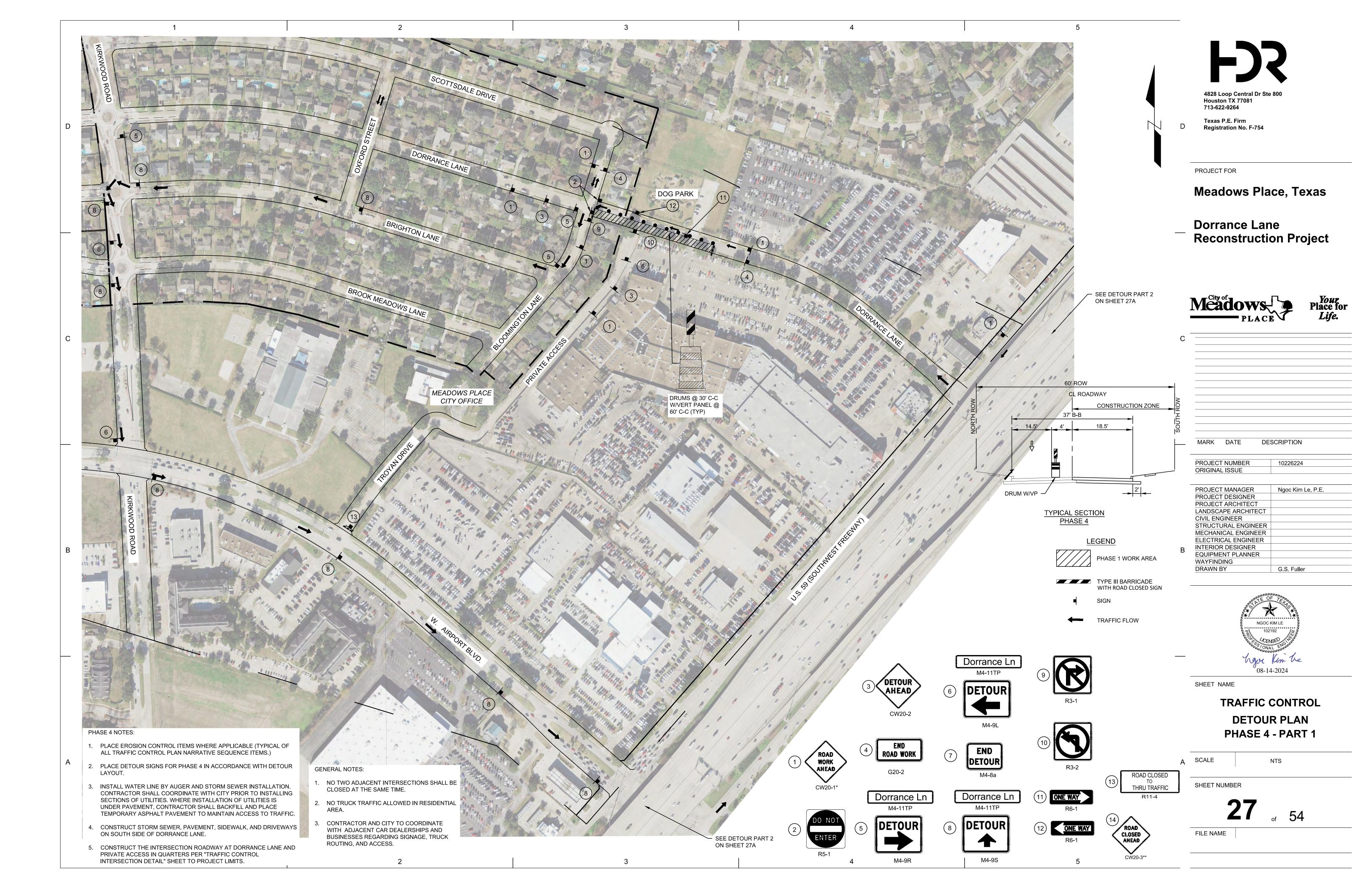
INTERIOR DESIGNER

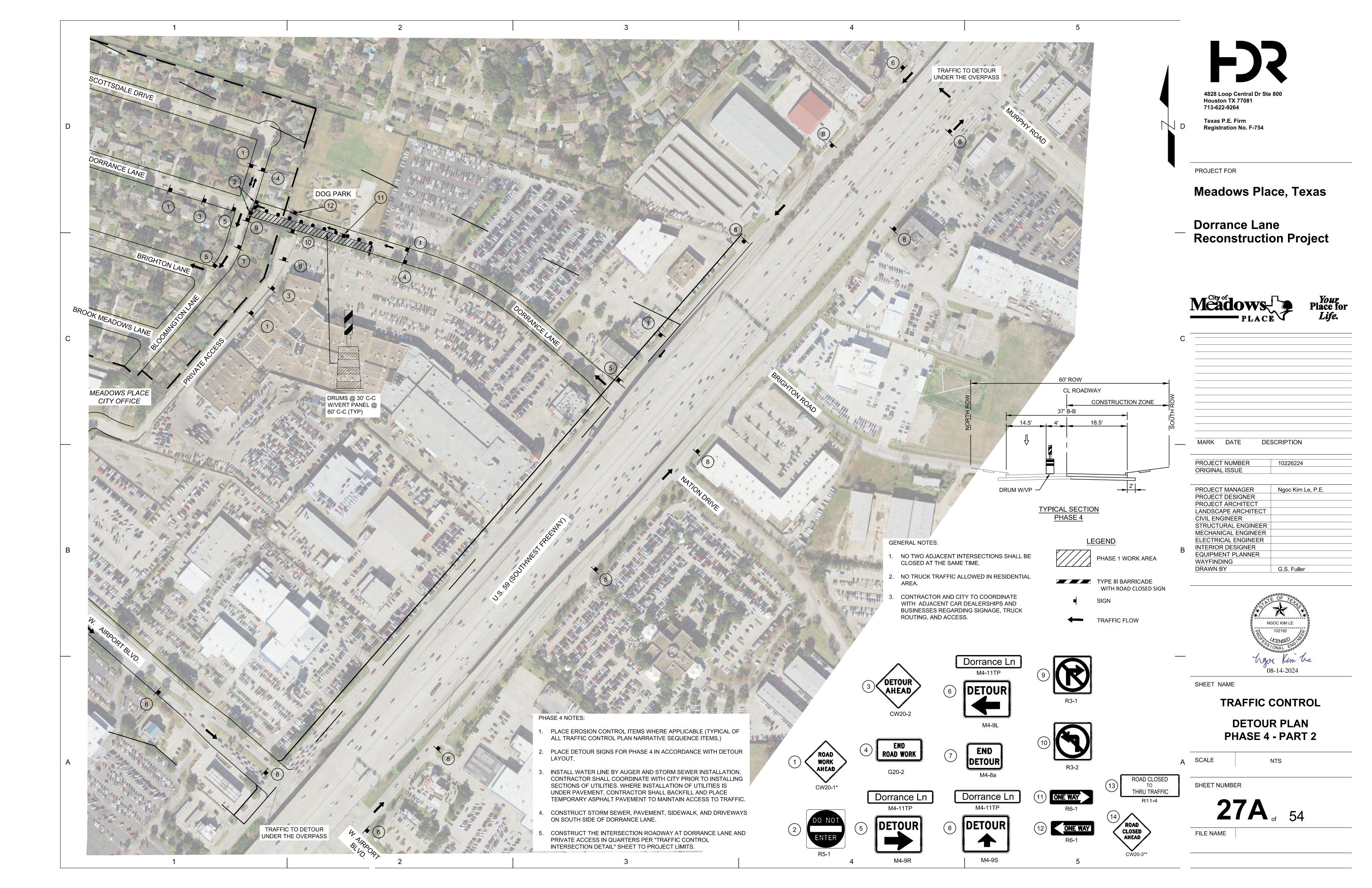
WAYFINDING

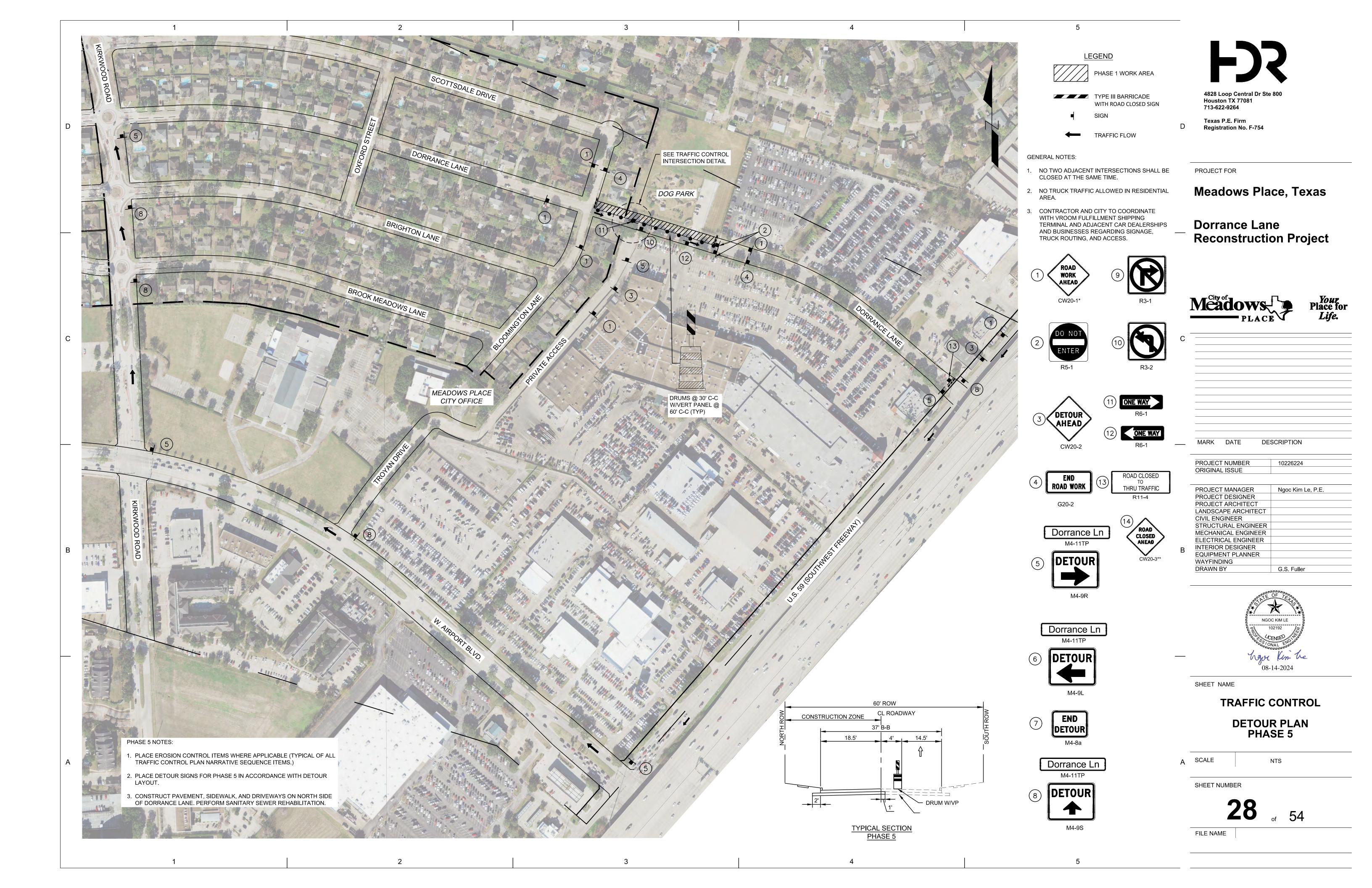
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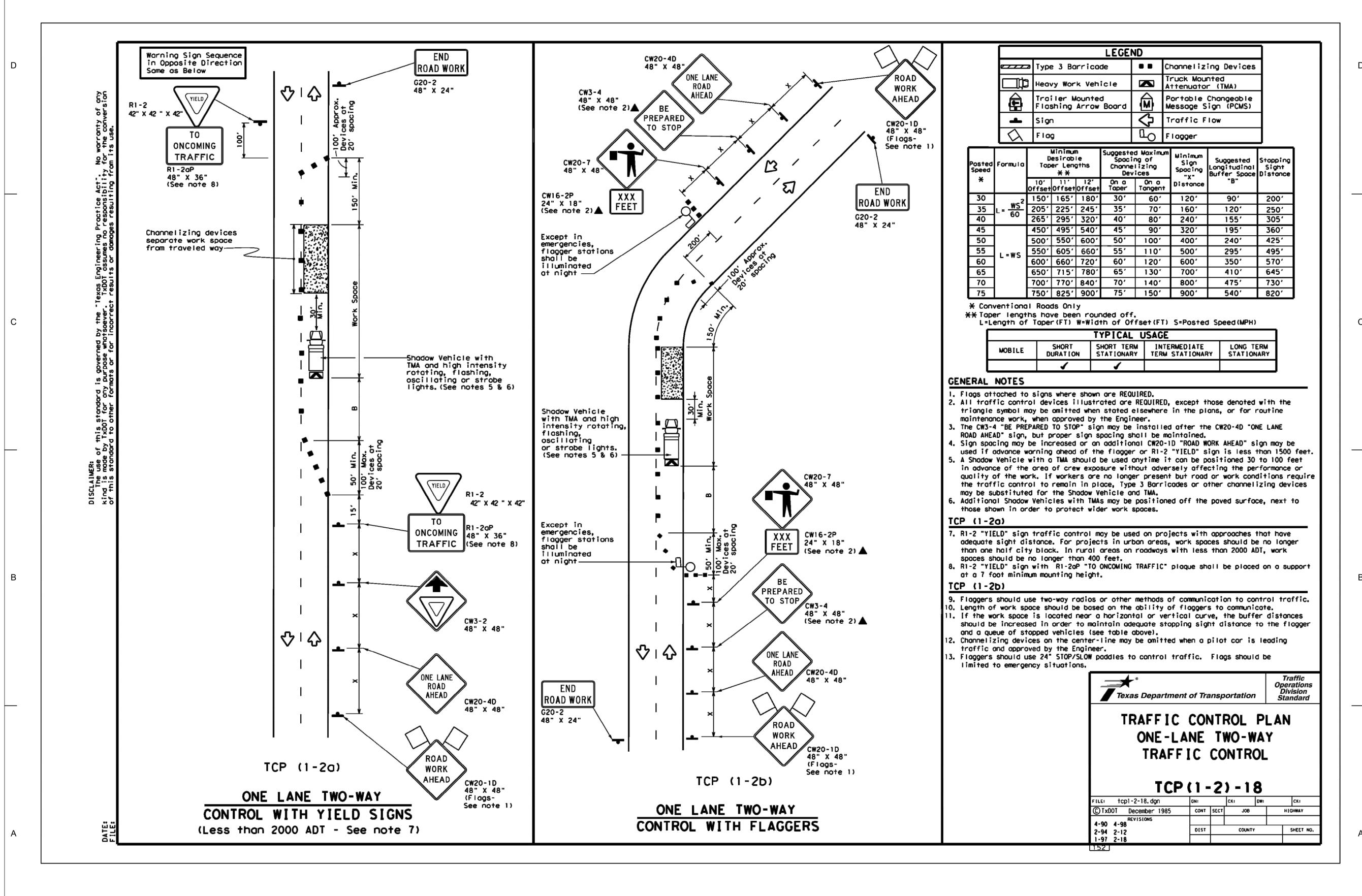
EQUIPMENT PLANNER

ORIGINAL ISSUE











4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264

Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project

Meadows PLACE P

MARK DATE DESCRIPTION

PROJECT NUMBER 10402813 **ORIGINAL ISSUE** PROJECT MANAGER Ngoc Kim Le, P.E. PROJECT DESIGNER PROJECT ARCHITECT LANDSCAPE ARCHITECT CIVIL ENGINEER STRUCTURAL ENGINEER MECHANICAL ENGINEER ELECTRICAL ENGINEER INTERIOR DESIGNER EQUIPMENT PLANNER WAYFINDING G.S. Fuller DRAWN BY



SHEET NAME

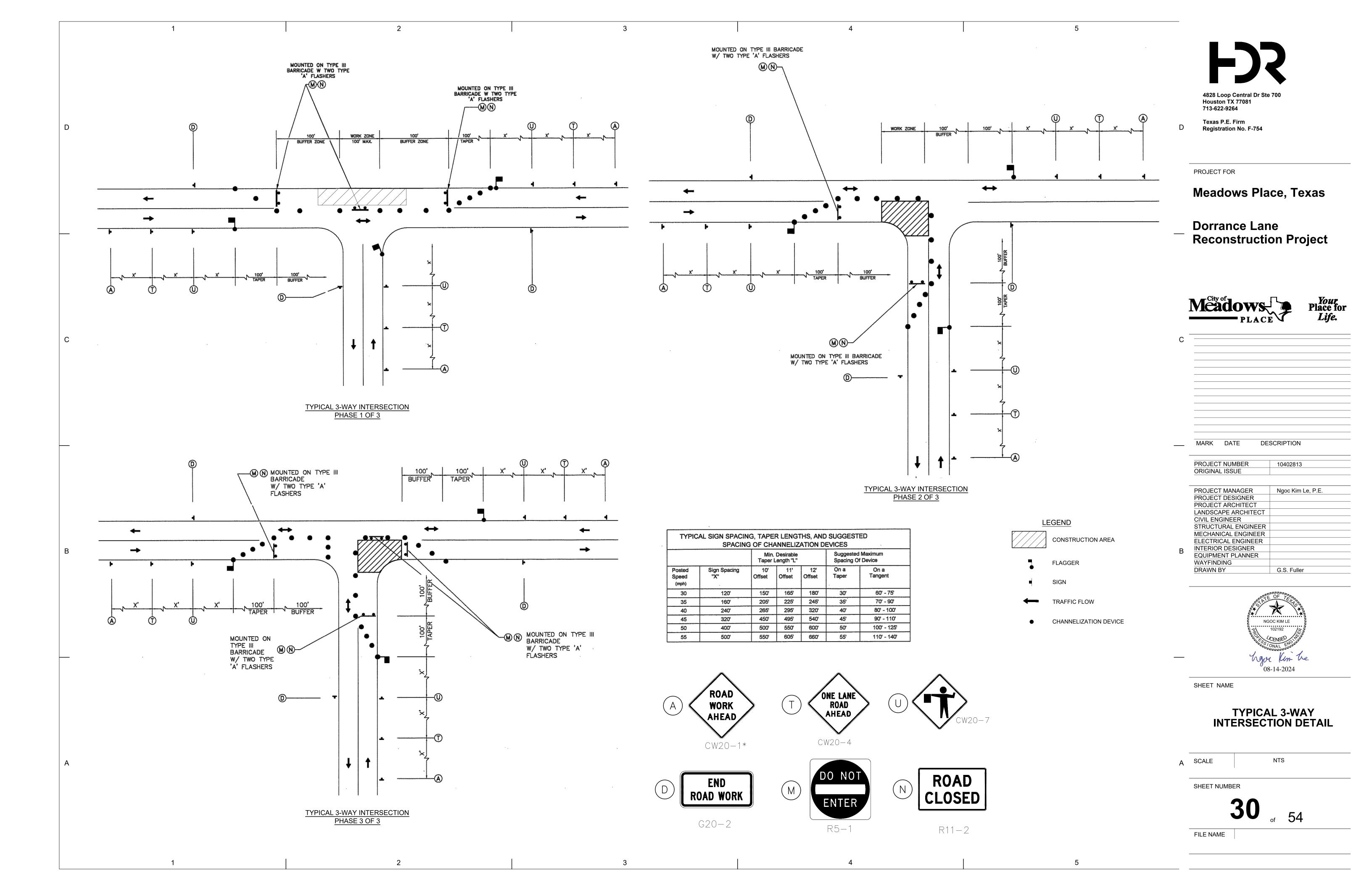
ONE-LANE TWO-WAY
TRAFFIC CONTROL DETAIL

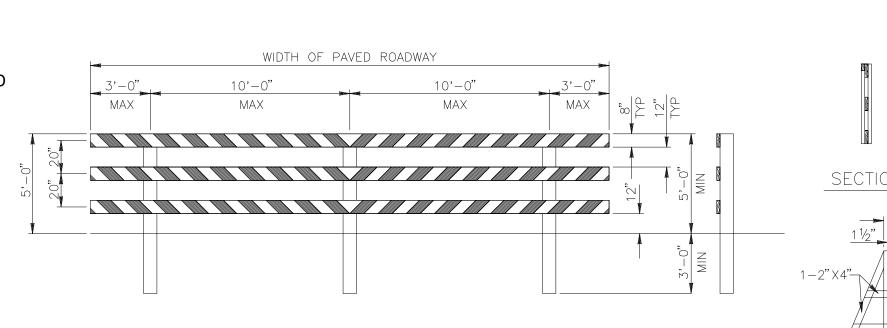
SCALE

SHEET NUMBER

29 of

FILE NAME





TYPE III BARRICADE FOR END OF ROAD

____4"−8" WIDE STRIPES

WOOD OR METAL PANEL

REQUIRED UNDER DRUM

WHEN SET ON ASPHALT PAVEMENT UNLESS

OTHER- WISE DIRECTED

BY THE ENGINEER.

FOR TYPE III BARRICADE FOR END OF ROAD, THE THREE (3) RAILS SHALL BE REFLECTIVE RED AND RELFLECTIVÉ WHITE STRIPES ON SIDE FACING TRAFFIC

DRUMS, SET ON END, AND USED FOR TRAFFIC WARNING OR

CHANNELIZATION SHALL BE APPROX 36" IN HEIGHT AND A MIN OF 18"

IN DIAMETER. THE CONTRACTOR, AT HIS OPTION, MAY USE DRUMS MADE

FROM STEEL BARRELS OR BLACK POLYETHYLENE PLASTIC DRUM LINERS

SHALL BE HORIZONTAL, CIRCUMFERENTIAL, REFLECTORIZED ORANGE AND

REFLECTORIZED STRIPE SHOULD START WITHIN TWO (2) INCHES OF THE

WHITE STRIPES ON EACH DRUM. IF THERE ARE NON- REFLECTORIZED

SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES, THEY

SHALL BE NO MORE THAN 2 INCHES WIDE. METAL DRUMS SHALL BE

ADDED. ALL DRUMS ON PROJECT WILL BE THE SAME COLOR. WHEN DRUMS ARE PLACED IN THE ROADWAY, APPROPRIATE WARNING SIGNS

LIGHT SHOULD BE PLACED ON DRUMS USED SINGLY AS A WARNING

PLACED ON DRUMS USED IN SERIES FOR TRAFFIC CHANNELIZATION.

CWI-8 CHEVRON SIGNS, CWI-6A ARROW SIGNS OR VP-I VERTICAL

PANELS MOUNTED ABOVE DRUMS MAY BE USED AS SUPPLEMENTS TO

DRUMS SHALL BE WEIGHTED WITH SAND TO THE EXTENT INDICATED IN

SHOULD BE USED. DURING HOURS OF DARKNESS, A FLASHING WARNING

PAINTED BLACK OR ORANGE BEFORE REFLECTORIZED STRIPES ARE

TOP OF THE DRUM. THERE SHALL BE AT LEAST TWO ORANGE AND TWO

WEIGHING APPROX EIGHT POUNDS EACH. THE MARKINGS ON DRUMS

REFLECTORIZED WHITE STRIPES, 4 TO 8 INCHES WIDE. THE FIRST

DRUMS

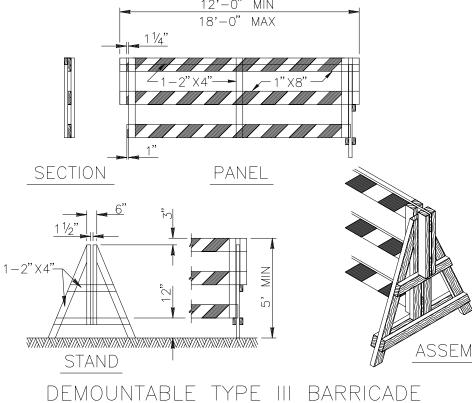
THE PLANS.

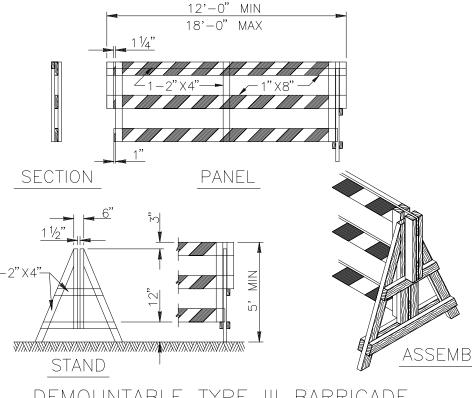
DRUM DELINEATION.

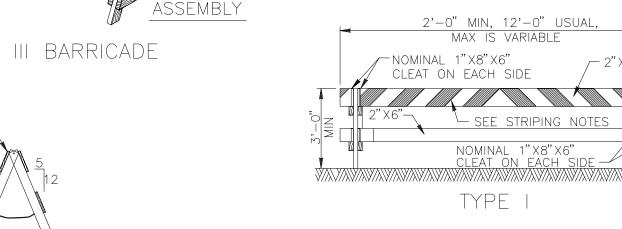
STRIPES TO BE REFLECTIVE

REFLECTIVE WHITE

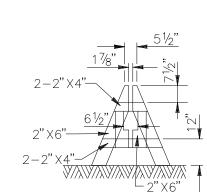
ORANGE &

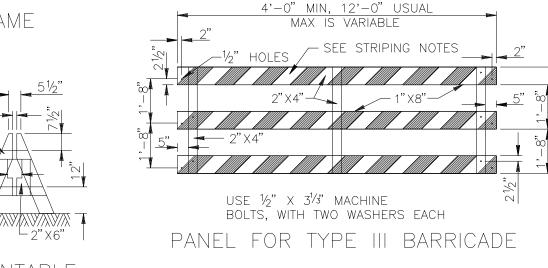






"A" FRAME





*−*9/₁₆" HOLES

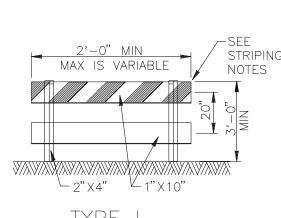
∠– 4"×4"

√½"X8" MACHINE BOLT

 $^{\sim}6-\frac{1}{2}$ "x8" machine bolts

WITH 2 WASHERS

WITH 2 WASHERS



CONES OR TUBULAR MARKERS ARE GENERALLY ONLY SUITABLE FOR TEMPORARY USAGE (UP TO 8 HOURS) WITH OTHER CHANNELIZATION DEVICES SUCH AS VERTICAL PANELS OR BARRICADES PREFERRED FOR LONGER TERM USAGE. CARE SHOULD BE TAKEN TO INSURE THAT THEY REMAIN IN THEIR PROPER LOCATION AND IN AN UPRIGHT POSITION.

TRAFFIC CONES AND TUBULAR MARKERS SHALL BE

BROADENED BASE AND MAY BE MADE OF VARIOUS

MATERIALS TO WITHSTAND IMPACT WITHOUT DAMAGE

ROADWAYS WHERE SPEED ARE RELATIVELY HIGH OR

COLOR ON CONES AND TUBULAR MARKERS. THEY

MATERIAL SHALL HAVE A SMOOTH, SEALED OUTER

SURFACE WHICH WILL DISPLAY THE SAME APPROX

REFLECTORIZATION OF TUBULAR MARKERS SHALL BE

A MIN OF TWO THREE-INCH BANDS PLACED A MAX

OF 2" FROM THE TOP WITH A MAX OF 6" BETWEEN

PROVIDED BY A MIN 6" BAND PLACED A MAX OF 3"

THE BANDS. REFLECTORIZATION OF CONES SHALL BE

TARGET VALUE. FOR NIGHTTIME USE THEY SHALL BE

TO THEMSELVES OR TO VEHICLES. LARGER SIZES

SHOULD BE USED ON FREEWAYS AND OTHER

WHERE EVER MORE CONSPICUOUS GUIDANCE IS

SHOULD BE KEPT CLEAN AND BRIGHT FOR MAX

REFLECTORIZED OR EQUIPPED WITH LIGHTING

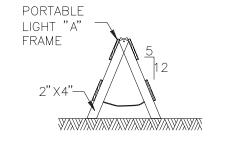
DEVICES FOR MAX VISIBILITY. REFLECTORIZED

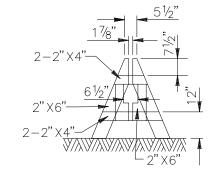
COLOR DAY AND NIGHT.

FROM THE TOP.

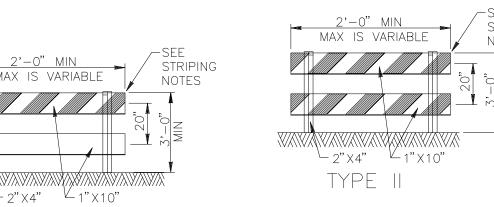
NEEDED. ORANGE SHALL BE THE PREDOMINANT

A MIN OF 18" INCHES IN HEIGHT WITH A



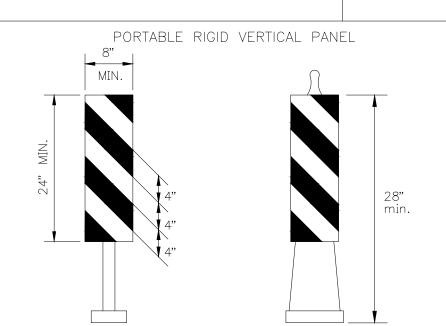


DEMOUNTABLE



4" X6" X61/2" BLOCK 2'-6" 2'-6"

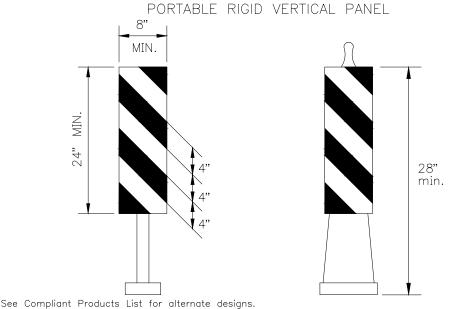
TYPE I



VERTICAL PANELS (VP)

TRAVEL WAY --

VERTICAL PANELS ARE NORMALLY USED AS CHANNELIZING DEVICES TO INDICATE TANGENT OR NEARLY TANGENT ROADWAY ALIGNMENT WHERE GOOD TARGET VALUE OF A DEVICE IS NEEDED IN DAYTIME AS WELL AS THE NIGHTTIME. IN ADDITION, VERTICAL PANELS SHOULD BE USED AT THE EDGE OF SHOULDER DROP-OFFS AND OTHER SUCH AREAS AS LANE TRANSITIONS WHERE POSITIVE DAY AND NIGHT DELINEATION MAY BE REQUIRED. VERTICAL PANELS SHOULD BE MOUNTED BACK TO BACK IF USED AT THE EDGE OF CUTS ADJACENT TO TWO-WAY TWO LANE ROADWAYS. STRIPES SHOULD ALWAYS SLOPE DOWNWARD TOWARD THE TRAVELED WAY.



1. CHANNELIZING DEVICES ON SELF-RIGHTING SUPPORTS MAY BE A VERTICAL PANEL, OPPOSING LANE DIVIDER OR CHEVRON.

2. CHANNELIZING DEVICES ON SELF-RIGHTING SUPPORTS SHALL BE USED AT LOCATIONS DETAILED ELSEWHERE IN THE PLANS. THESE DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

3. THE CONTRACTOR SHALL MAINTAIN DEVICES IN A CLEAN CONDITION AND REPLACED DAMAGED, NON-REFLECTIVE, FADED, OR BROKEN DEVICES AND BASES AS NECESSARY.

4. PORTABLE BASES SHALL BE FABRICATED FROM VIRGIN AND/OR RECYCLED RUBBER. APPROXIMATE WEIGHT OF PORTABLE BASES SHALL BE 35 LBS.

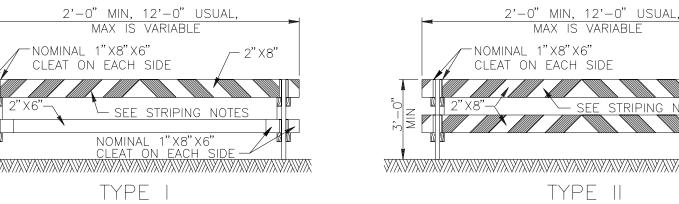
BARRICADE NOTES

THE MOST RECENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND IT'S REVISIONS, SHALL GOVERN THE CONSTRUCTION AND USE OF ALL ITEMS HEREIN DESCRIBED.

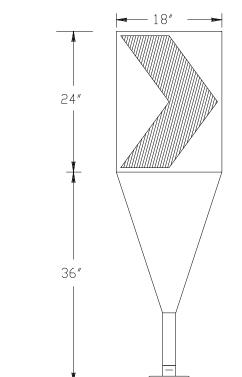
CHANNELIZATION DEVICES OTHER THAN BARRICADES SHOULD NORMALLY BE USED FOR CHANNELIZATION PURPOSES.

BARRICADES SHOULD NORMALLY BE PLACED PERPENDICULAR TO THE TRAFFIC FLOW. OTHER CHANNELIZING DEVICES, SUCH AS DRUMS, VERTICAL PANELS OR PORTABLE BARRIERS SHOULD BE USED WHERE NEEDED TO SEPARATE TRAFFIC FROM THE WORK AREA. IN ALL CASES, THE BARRICADES SHOULD BE SO LOCATED AS TO MOST ADVANTAGEOUSLY WARN AND DIRECT TRAFFIC.

BARRICADES MAY BE DESIGNED AND CONSTRUCTED FROM WOOD OR ANY OTHER



1" X8" 2" X6' 4"X6" (OR LARGER)



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

DEGREES IN DIRECTIONS TRAFFIC IS TO PASS.

BARRICADE IN A CLEAN AND GOOD CONDITION.

COMPONENTS MADE OF LUMBER SHALL BE PAINTED WITH A MINIMUM OF TWO COATS OF AN APPROVED BRAND OF WHITE PAINT TO SECURE THOROUGH COVERAGE AND A UNIFORM WHITE COLOR.

12'-0" MIN OPENING

SUITABLE MATERIAL IN A MANNER APPROVED BY

TRANSPORTATION. THE CONSTRUCTION DETAILS

SYSTEMS FOR BARRICADES. THE DETAILS OF RAIL

WIDTH AND STRIPING, NUMBER AND SPACING OF

BARRICADES ARE TO BE CONSTRUCTED OF CLEAN

SOUND MATERIAL. ALL SURFACES ABOVE GROUND,

EXCEPT THE UNPAINTED GALVANIZED METAL OR

THE DEPARTMENT OF TRAFFIC AND

SHOWN HEREON ARE TYPICAL AND ARE

WHEN ALTERNATE DESIGNS ARE USED.

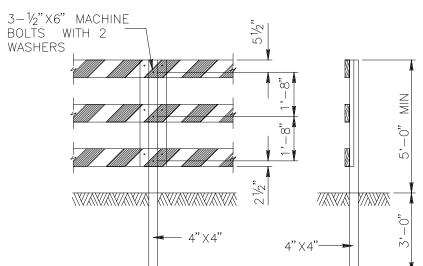
ALUMINUM COMPONENTS MAY BE USED.

SUGGESTED DETAILS FOR WOOD SUPPORT

RAILS, MINIMUM LENGTH AND HEIGHT (ABOVE

PAVEMENT) OF RAILS MUST BE ADHERED TO

WHICH ARE NOT STRIPED, SHALL BE WHITE



POST FOR TYPE III BARRICADE

ORANGE (REFLECTORIZED RED) STRIPES FOR BARRICADES, DRUMS AND VERTICAL PANELS SHALL BE CONSTRUCTED OF "HIGH INTENSITY" SHEETING AND SHALL BE MAINTAINED TO MEET THE APPEARANCE, COLOR AND REFLECTIVITY REQUIREMENTS SET BY DOT. THE CONTRACTOR SHALL MAINTAIN EACH

THE REFLECTORIZED WHITE AND REFLECTORIZED

BARRICADES SHALL BE REMOVED UPON COMPLETION OF THE WORK AND/OR THE ELIMINATION OF THE HAZARD ON ANY SECTION.

GATE FOR

TYPE III BARRICADE

- 1. The chevron shall be a vertical rectangle sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle
- 3. 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.
- visible for at least 500 feet. 5. Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type E (Fluorescent Prismatic) conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall be black vinyl non-reflective decal sheeting meeting the requirements of DMS-8320.

CHEVRONS

with a minimum size of 12 by 18 inches. 2. Chevrons are intended to give notice of a operators with regard to changes in horizontal alignment of the roadway.

4. To be effective, the chevron should be

TYPE III BARRICADE STRIPING SHOULD COVER THE FULL WIDTH OF THE RAIL. STRIPING OF RAILS, PANELS, ETC, SHOULD SLOPE DOWNWARD AT AN ANGLE OF 45°

STRIPING FOR BARRICADE

FOR ALL TYPES OF BARRICADES WITH RAILS LESS THAN 3'-0" LONG, STRIPES 4" WIDE SHALL BE USED. IDENTIFICATION MARKINGS MAY BE SHOWN ONLY ON BACK SIDE OF BAR- RICADE RAILS.

STAND FOR

WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, IT IS DESIRABLE THAT THE STRIPES SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING. WHEN BOTH RIGHT AND LEFT TURNS ARE PROVIDED FOR, THE CHEVRON STRIPING SHOULD SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE.

SHEET NAME

PROJECT NUMBER

PROJECT MANAGER

PROJECT DESIGNER

CIVIL ENGINEER

WAYFINDING

DRAWN BY

PROJECT ARCHITECT

LANDSCAPE ARCHITECT

STRUCTURAL ENGINEER

MECHANICAL ENGINEER

ELECTRICAL ENGINEER

INTERIOR DESIGNER

EQUIPMENT PLANNER

ORIGINAL ISSUE

4828 Loop Central Dr Ste 700

Meadows Place, Texas

Reconstruction Project

DESCRIPTION

Ngoc Kim Le, P.E.

G.S. Fuller

NGOC KIM LE

08-14-2024

Houston TX 77081

713-622-9264

PROJECT FOR

Texas P.E. Firm

Registration No. F-754

Dorrance Lane

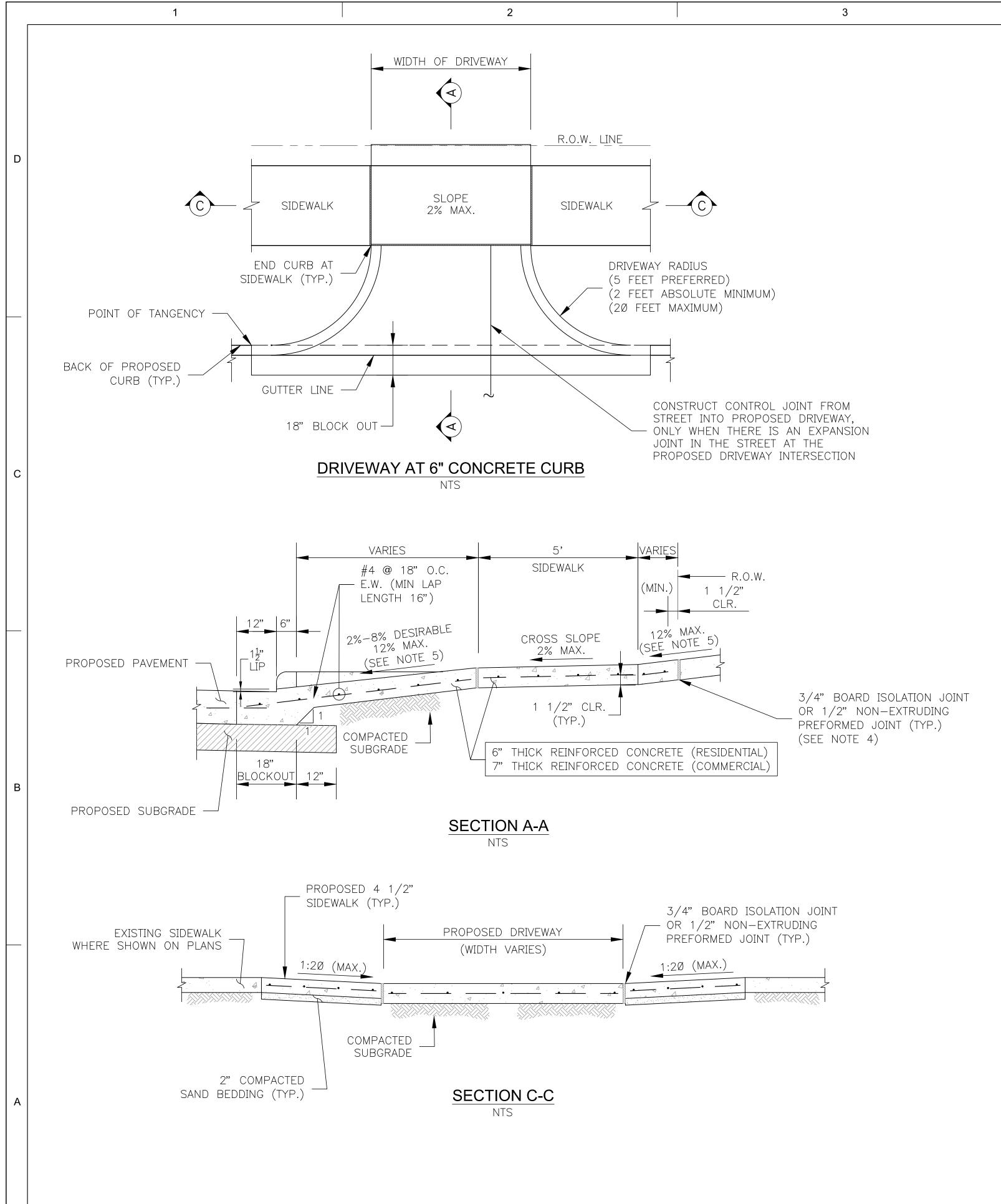
BARRICADE STANDARD DETAIL

A SCALE

SHEET NUMBER

FILE NAME

5 4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264 6∅'-Ø" MAX. Texas P.E. Firm Registration No. F-754 2Ø'-Ø" 20'-0" 20'-0" € CONTRACTION • CONTRACTION & EXPANSION EXPANSION JOINT JOINT (SAWED) JOINT (SAWED) PROJECT FOR **Meadows Place, Texas** SPACING OF TRANSVERSE **Dorrance Lane EXPANSION AND CONTRACTION JOINTS Reconstruction Project** SCALE: N.T.S. FORMED KEYWAY (SEE NOTE 5) #5 TIE BARS (MIN. 3Ø" IN 1/4" SAWED JOINT LENGTH) WITH SEALANT @ SAME SPACING AS TRANSVERSE STEEL OR 48" MAX. C-C **GENERAL NOTES:** TRANSVERSE STEEL 1. REINFORCING CENTERED IN PROPOSED PAVEMENT, 3" 1 1/2" LONGITUDINAL STEEL CLEAR AT EDGES. 2. IF NO EXPOSED REINFORCING STEEL EXISTS, HORIZONTAL LONGITUDINAL CONSTRUCTION JOINT DOWELS SHALL BE GRADE 60, 24" LONG DRILLED AND MARK DATE DESCRIPTION AND EMBEDDED 12" INTO THE CENTER OF THE EXISTING SCALE: N.T.S. CONCRETE SLAB WITH EPOXY OR APPROVED EQUAL. JOINT SEALANT SIZE OF DOWEL BARS SHALL CONFORM TO TABLE 1 **→** 3/4" GAP PROJECT NUMBER 10402813 DOWELS SHALL BE PLACED 12" CENTER TO CENTER. WITH 1/4" RADIUS (ALLOWS DOWEL ORIGINAL ISSUE 1/4" SAWED JOINT BAR TO MOVE) 3. THE CONTRACTOR TO USE FULL DEPTH SAWCUT WITH WITH SEALANT DRILLED IN DOWELS. DOWEL AT -D/4PROJECT MANAGER Ngoc Kim Le, P.E. 12" C-C PROJECT DESIGNER 4. THE CHAIRS USED TO SUPPORT THE BAR MATS SHALL PROJECT ARCHITECT BE OF SUFFICIENT STRUCTURAL QUALITY AND NUMBER LANDSCAPE ARCHITECT TO HOLD THE MAT WITHIN THE PLACEMENT HEIGHT, AND **CIVIL ENGINEER** SHALL BE OF A TYPE APPROVED BY THE ENGINEER. STRUCTURAL ENGINEER SPACING OF BAR SUPPORT CHAIRS SHALL BE 3 FEET MECHANICAL ENGINEER MAXIMUM. DOWELS ARE TO BE IMBEDDED MIN. 12" INTO EXISTING CONCRETE. ELECTRICAL ENGINEER CONCRETE PAVEMENT INTERIOR DESIGNER 5. SAWED CONTRACTION JOINTS SHALL BE USED FOR EXPANSION JOINT OR ASPHALT IMPREGNATED - FIBERBOARD **EQUIPMENT PLANNER** DOWELS MUST BE EPOXIED LONGITUDINAL JOINTS WHEREVER MORE THAN ONE LANE CONTRACTION JOINT (SAWED) WITH APPROVED MATERIAL. — WAYFINDING 3/4" WIDTH IS PLACED IN A SINGLE POUR. KEYED HEAVY PLASTIC DRAWN BY G.S. Fuller SCALE: N.T.S. FILLER BOARD CONSTRUCTION JOINTS SHALL BE USED AT ALL OTHER OR STEEL TUBE MATCH EXIST.
PVM'T. THICKNESS
W/UNDERCUT. 6. D = THICKNESS OF CONCRETE PAVEMENT.DOWEL TYPE EXPANSION JOINT NOTE FOR CONTRACTION JOINT: SCALE: N.T.S. 1. 20'-0" MAXIMUM SPACING BETWEEN JOINTS. NGOC KIM LE UNDERCUT DETAIL WITH HEADER DOWELS SCALE: N.T.S. PAVEMENT THICKNESS (D) DOWEL DIA. 3/4" 7" 1" 08-14-2024 1" 8' 9" & 10" 1 1/4" SHEET NAME NOTES FOR DOWEL EXPANSION JOINT: **PAVING DETAILS 1** 1. EXPANSION JOINT SHALL BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED AT A MAXIMUM DISTANCE OF 60 FEET. 2. CENTER DOWEL HORIZONTALLY ON JOINT. 3. EXPANSION JOINT BARS SHALL BE HELD PARALLEL TO THE FINISHED CONCRETE SURFACE. SCALE NTS SHEET NUMBER FILE NAME PAVING DETAILS



NOTES:

- 1. DRIVEWAYS SHALL BE CONSTRUCTED TO MATCH EXISTING DRIVEWAY WIDTH MEASURED AT THE RIGHT-OF-WAY. WHEN DRIVEWAY EXCEEDS 20'-0" IN WIDTH, OR WHEN EXISTING DRIVEWAY JOINT OR PROPOSED PAVING JOINT FALLS WITHIN LIMIT OF DRIVEWAY, A 3/4" REDWOOD BOARD EXPANSION JOINT W/STEEL RUNNING THROUGH IT, OR APPROVED EQUAL SHALL BE INSTALLED THE FULL LENGTH OF THE DRIVEWAY.
- 2. RESIDENTIAL DRIVEWAYS SHALL BE CONSTRUCTED OF CONCRETE 6" THICK.
- 3. SELECT BACKFILL SHALL BE USED AS A BASE LEVELER AND/OR AS BACKFILL REQUIRED WHEN OVER EXCAVATION OCCURS DUE TO POOR SOILS OR ANY OTHER CONDITION RESULTING IN OVER EXCAVATION OF DRIVEWAYS. SELECT BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- 4. WHERE TYING INTO EXISTING CONCRETE DRIVEWAY AND CONDITION OF EXISTING DRIVEWAY ALLOWS, PROVIDE 3/4" REDWOOD BOARD W/24" LONG #4 DEFORMED BARS @ 18" O.C. THROUGH IT DRILLED INTO EXISTING DRIVEWAY. WHERE EXISTING CONCRETE IS IN POOR CONDITION OR WHERE DRIVEWAY IS ASPHALT, SHELLCRETE, SHELL, GRAVEL, DIRT, OR GRASS, PROVIDE STANDARD PAVING HEADER AT NO ADDITIONAL COST.
- 5. THE PROPOSED LIMITS OF REPLACEMENT OF DRIVEWAYS SHOWN ON THE PLAND AND PROFILES ARE APPROXIMATE. CONTRACTOR TO VERIFY THAT BASED ON THESE LIMITS, THE SLOPE IS NOT GREATER THAN 12%. CONTRACTOR SHALL COORDINATE WITH THE CITY'S REPRESENTATIVE AND PROPERTY OWNER TO REMOVE AND REPLACE DRIVEWAY BEYOND ROW AS REQUIRED TO ACHIEVE DRIVEWAY GRADE EQUAL TO OR LESS THAN 12%. REMOVAL/REPLACEMENT OF DRIVEWAYS TO RIGHT-OF-WAY VS NEAREST JOINT BEYOND ROW SHALL BE A FIELD DECISION. CITY REQUIRES CLEAN JOINT AT ROW IN ANY CASE. IF DECISION IS MADE TO EXTEND DRIVEWAY REPLACEMENT TO AN EXISTING EXPANSION JOINT BEYOND THE ROW, PROVISION OF A CONTRACTION JOINT AT THE ROW IS REQUIRED.



Texas P.E. Firm
Registration No. F-754

713-622-9264

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project





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WAYFINDING
DRAWN BY
G.S. Fuller



SHEET NAME

PAVING DETAILS 2

SCALE

NTS

SHEET NUMBER

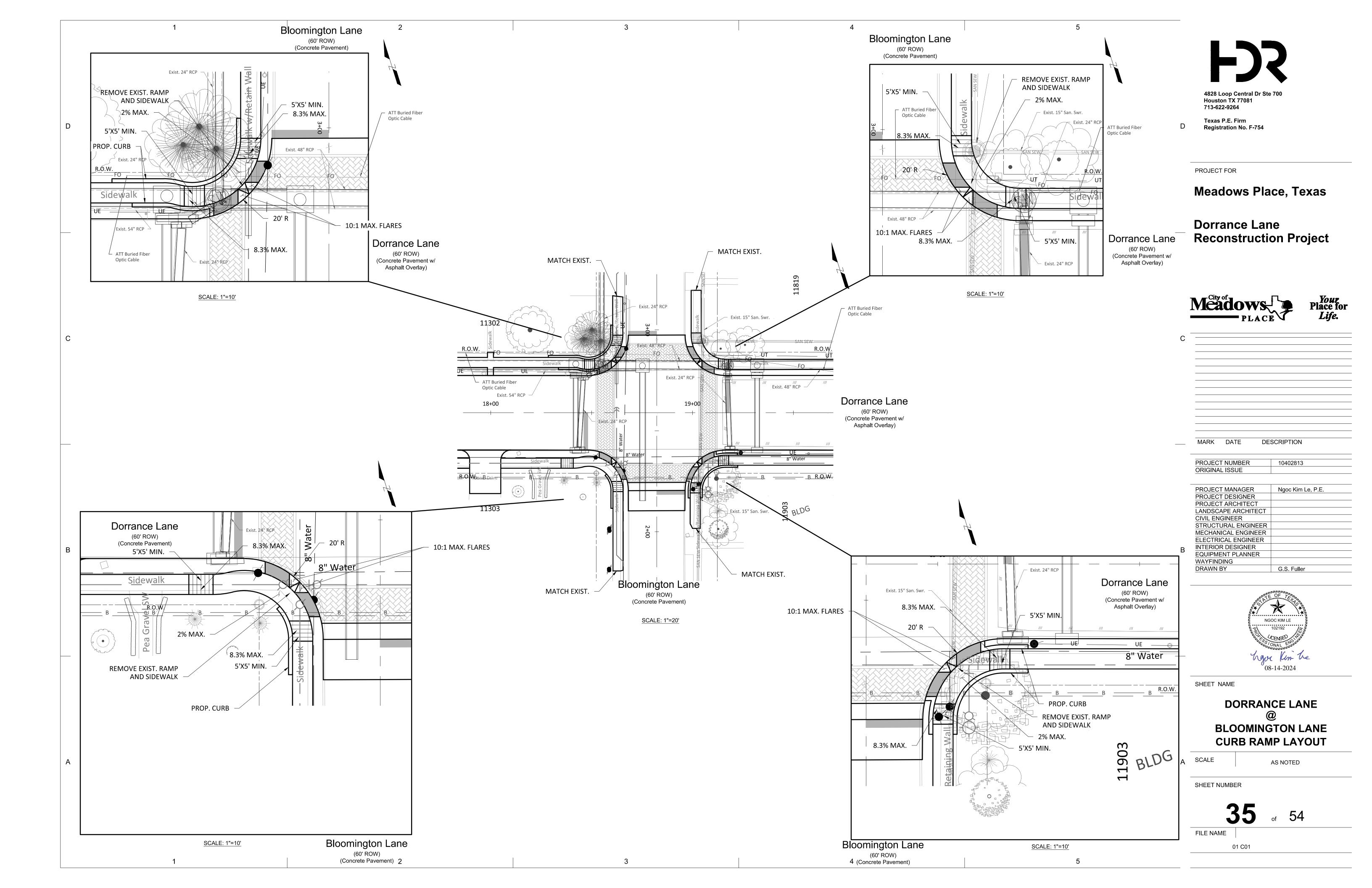
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f 54

FILE NAME

PAVING DETAILS

4828 Loop Central Dr Ste 700 Houston TX 77081 713-622-9264 SIDEWALK NOTES: Texas P.E. Firm 1. STREET GRADES AND CROSS SLOPES SHALL BE AS SHOWN ELSEWHERE IN THE PLANS. NOTE: Registration No. F-754 SIDEWALK SLOPES SHALL COMPLY WITH THE TEXAS ACCESSIBILITY CHANGES IN LEVEL GREATER THAN 1/4 INCH ARE NOT PERMITTED. STANDARDS 403.3 "SLOPE" 2. DRIVEWAYS AND TURNOUTS SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH ITEM CONCRETE DRIVEWAYS, SIDEWALKS SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH ITEM, "CONCRETE SIDEWALKS". PROP SIDEWALK PROJECT FOR PEXIST CONC SIDEWALK, DRIVEWAY OR PAVING **Meadows Place, Texas Dorrance Lane** ———— R.O.W. **Reconstruction Project** EDGES SHALL BE — ROUNDED W/1/4" RADIUS 4 1/2" CONCRETE SIDEWALK (TYP.) _#4 DOWELS MATCH EXISTING NATURAL GRADE CROSS SLOPE GROUND #4 DOWELS ON 2.Ø% MAX. 18" CENTERS 6" COMPACTED SELECT FILL-2" COMPACTED SAND BEDDING - COMPACTED SUBGRADE SIDEWALK HEADER DETAIL 1 1/2" \longrightarrow 3 - #3 MIN. LAP LENGTH = 16" (TO BE USED WHEN DOWELING INTO (TYP.) EXISTING CONC IS NOT PRACTICAL SCORED CONTRACTION JOINT EVERY 5' AS DIRECTED AND APPROVED BY ENGINEER) TYPICAL SIDEWALK SECTION (NO SEPARATE PAY) NTS NTS EXPANSION JOINT SPACING 20' MAXIMUM EXPANSION JOINT: 1/2" THICK CLEAR HEART REDWOOD WITH DOWELS MARK DATE DESCRIPTION SIDEWALK JOINT DETAILS PROJECT NUMBER 10402813 ORIGINAL ISSUE PROJECT MANAGER Ngoc Kim Le, P.E. PROJECT DESIGNER -DRILL INTO EXIST CONC PROJECT ARCHITECT 1/20" BAR DETAIL A LANDSCAPE ARCHITECT & SET IN PLACE W/PO-ROC NO BOARD JOINT.— PLACE EXPANSION JNT 4' FROM THIS JNT OR APPROVED EQUÁL CIVIL ENGINEER STRUCTURAL ENGINEER __1/4'' R MECHANICAL ENGINEER EXIST OR PROP. CURB— ELECTRICAL ENGINEER PROPOSED SIDEWALK — #4 X 10" AT SAWCUT EXIST. CONCRETE— INTERIOR DESIGNER -18" CENTERS **EQUIPMENT PLANNER** - PROP SIDEWALK WAYFINDING DRAWN BY G.S. Fuller #4 X 10" BAR AT 18" C-C MIN.— DRILLED INTO EXIST CONCRETE AND SET IN PO-ROC EPOXY OR -verify board. 1/4" REACHES BOTTOM APPROVED EQUAL. OF. PÖUR * - 2" SAND BEDDING NGOC KIM LE EXIST CONCRETE CURB, 3/4ø" BOARD EXP→ - 6" COMPACTED SELECT FILL SIDEWALK OR ROADWAY JŃT FILLER (REDWOOD BOARD) T=THICKNESS 10" EXIST OR Togor Kim he PROP. ROADWAY -BAR DIA +1/4" 5''* * 3" FOR CONCRETE CURB 08-14-2024 T = THICKNESS (4.5" MIN.) DETAIL A EXPANSION JOINT TO BE CONNECTION OF PROPOSED SIDEWALK PLACED AT INTERVALS OF SHEET NAME 20' MAX OR AS DIRECTED TO CURBED ROADWAY PROPOSED SIDEWALK AT EXISTING CONCRETE BY THE ENGINEER. SIDEWALK DETAILS NTS NTS SIDEWALK EXPANSION JOINT NTS SCALE NTS SHEET NUMBER FILE NAME PAVING DETAILS



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 alian 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

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.

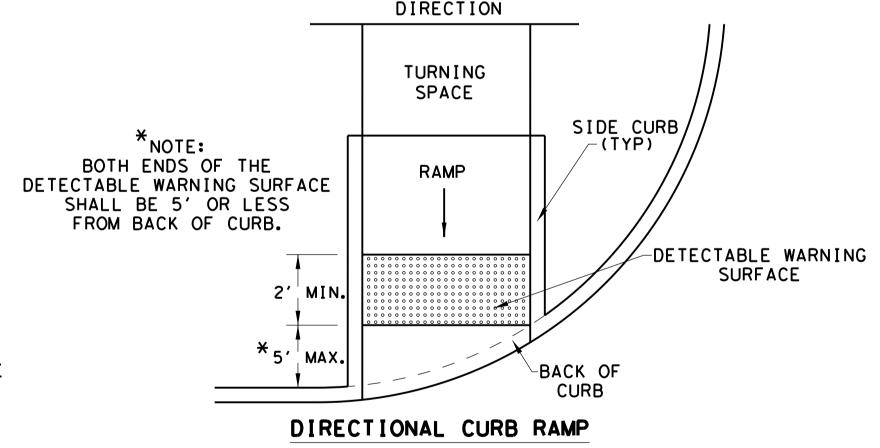
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve 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".

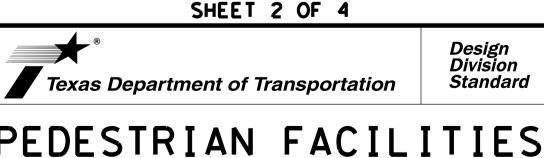
34. Sidewalk details are shown elsewhere in the plans.

PEDESTRIAN TRAVEL DIRECTION TURNING SPACE DETECTABLE WARNING RAMP SURFACE -SIDE FLARE (TYP) 2' (MIN.) -BACK OF PERPENDICULAR CURB RAMP TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.



PEDESTRIAN TRAVEL

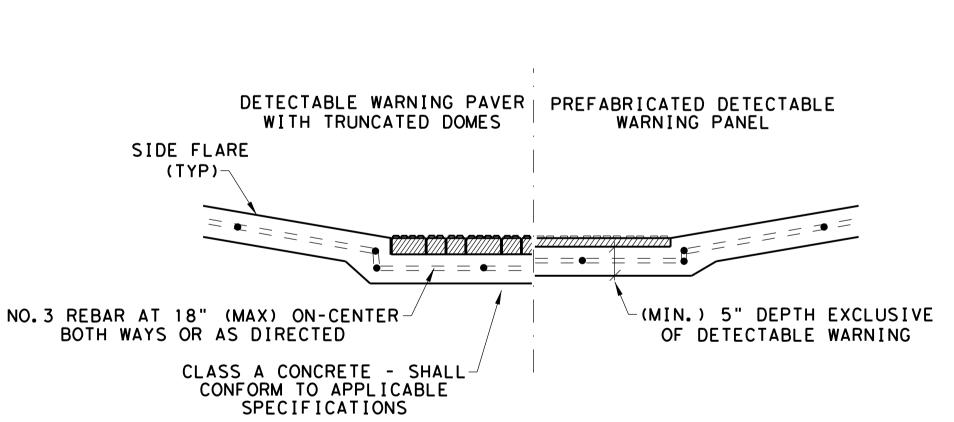
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.



PEDESTRIAN FACILITIES CURB RAMPS

PED-18

ILE: ped18 DN: TXDOT DW: VP CK: KM C) T×DOT: MARCH, 2002 CONT SECT EVISED 08,2005 REVISED 06, 2012 REVISED 01, 2018 SHEET NO. 37 of 54



SECTION VIEW DETAIL CURB RAMP AT DETECTIBLE WARNINGS

(25%) of a full unit. Cut detectable warning paver units using a power saw.

TURNING SPACE

-DETECTABLE WARNING

SURFACE

RAMP RAMP 2' (Min.)

-BACK OF PARALLEL CURB RAMP TYPICAL PLACEMENT OF DETECTABLE WARNING

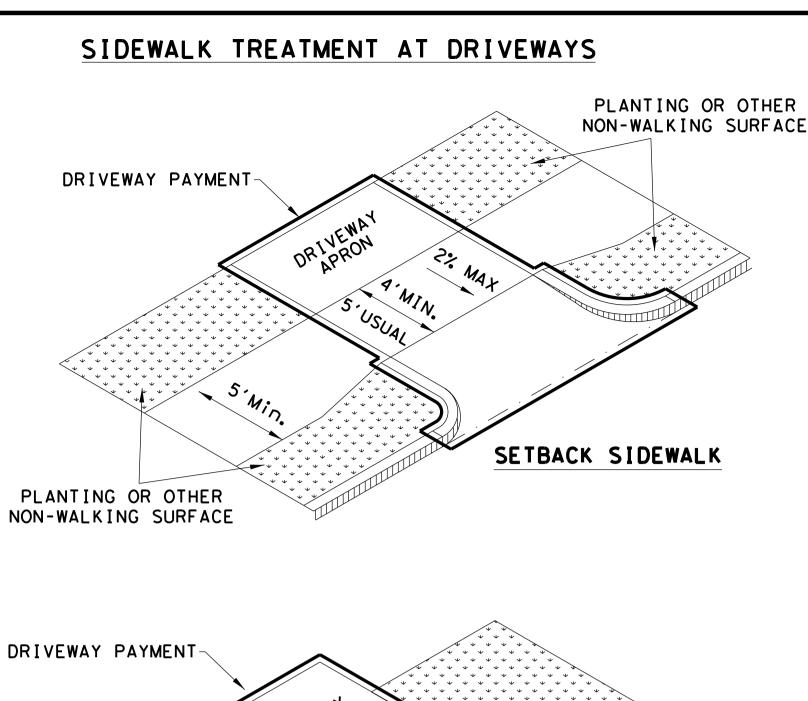
SURFACE ON LANDING AT STREET EDGE.

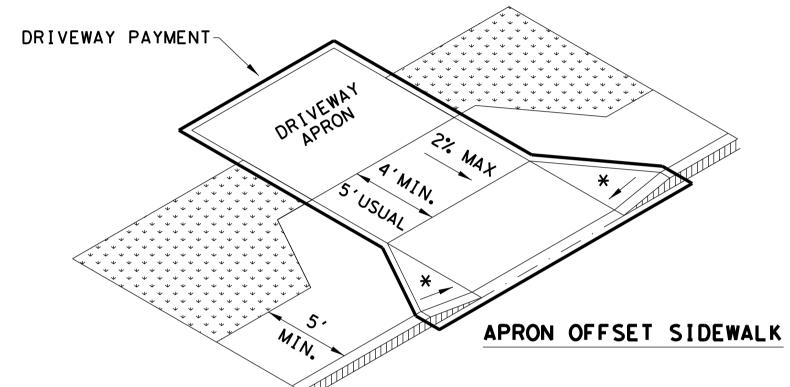
DETECTABLE WARNING SURFACE DETAILS

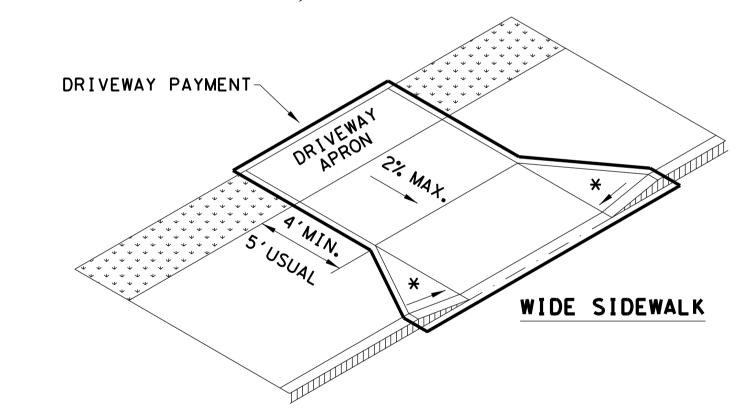
PEDESTRIAN TRAVEL

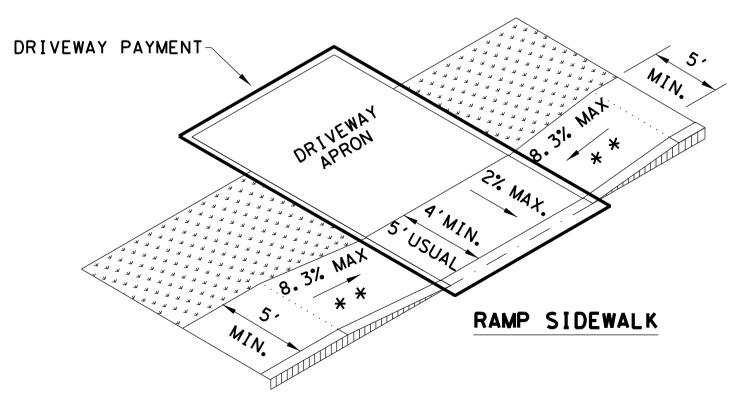
DIRECTION

NGOC KIM LE 08-14-2024





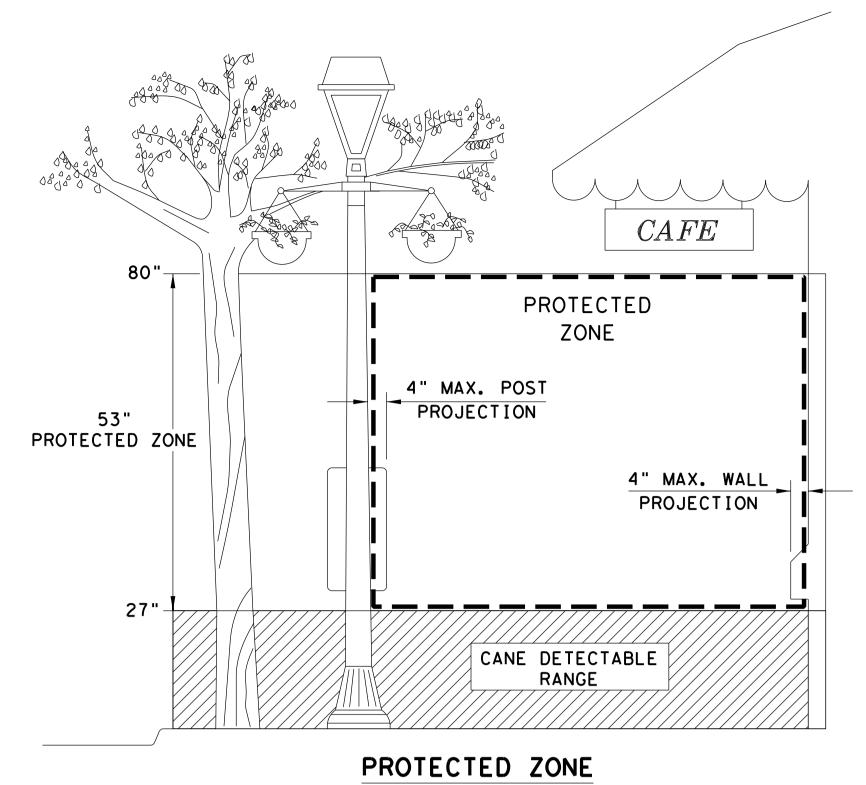




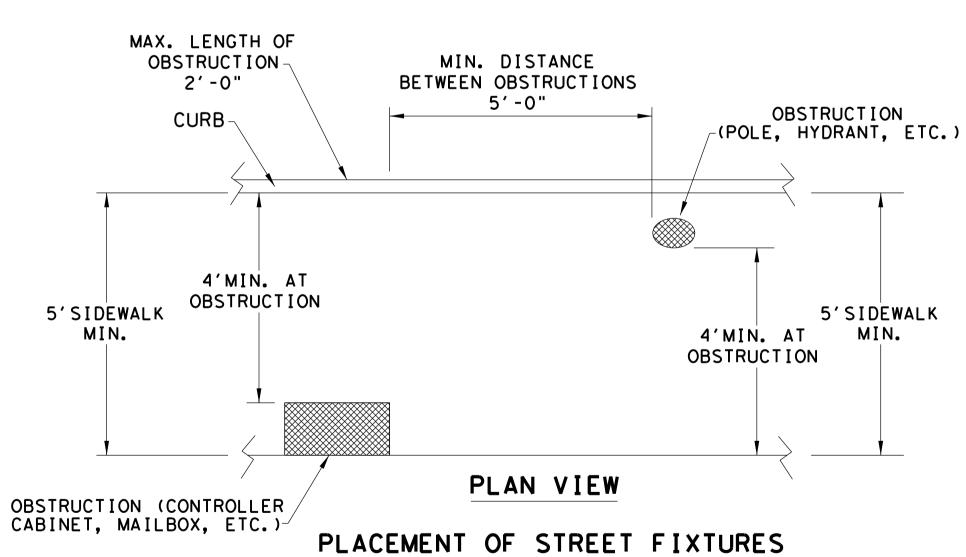
NOTES:

* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.

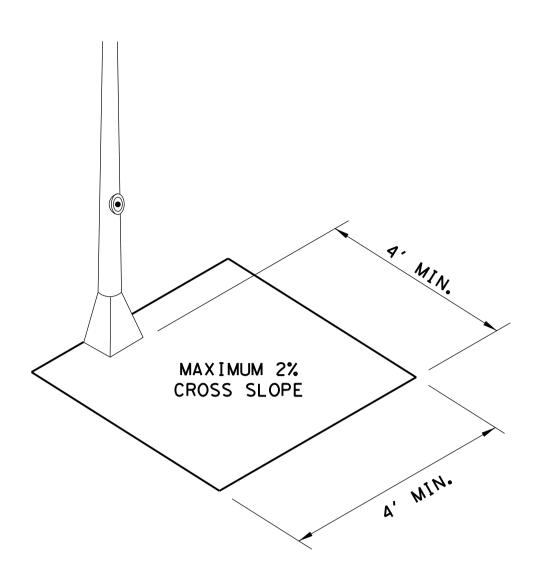
* IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



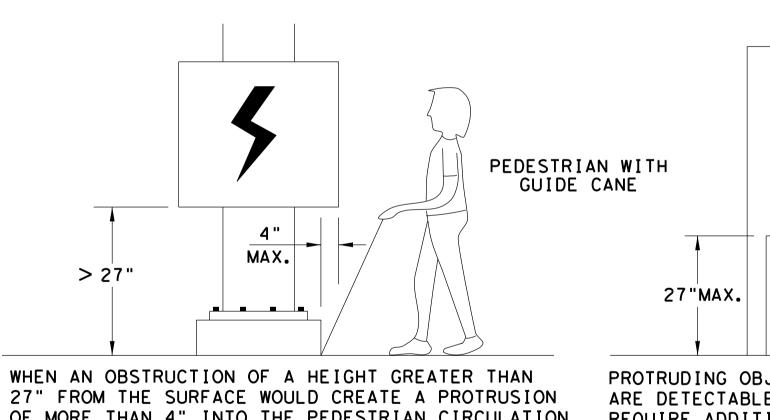
NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.



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



CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



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.

08-14-2024

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

PHONE

DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

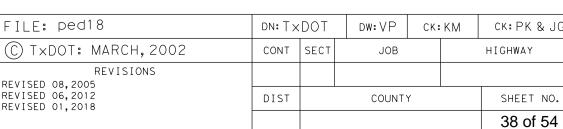


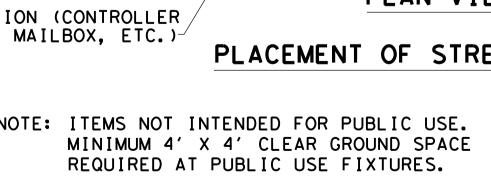


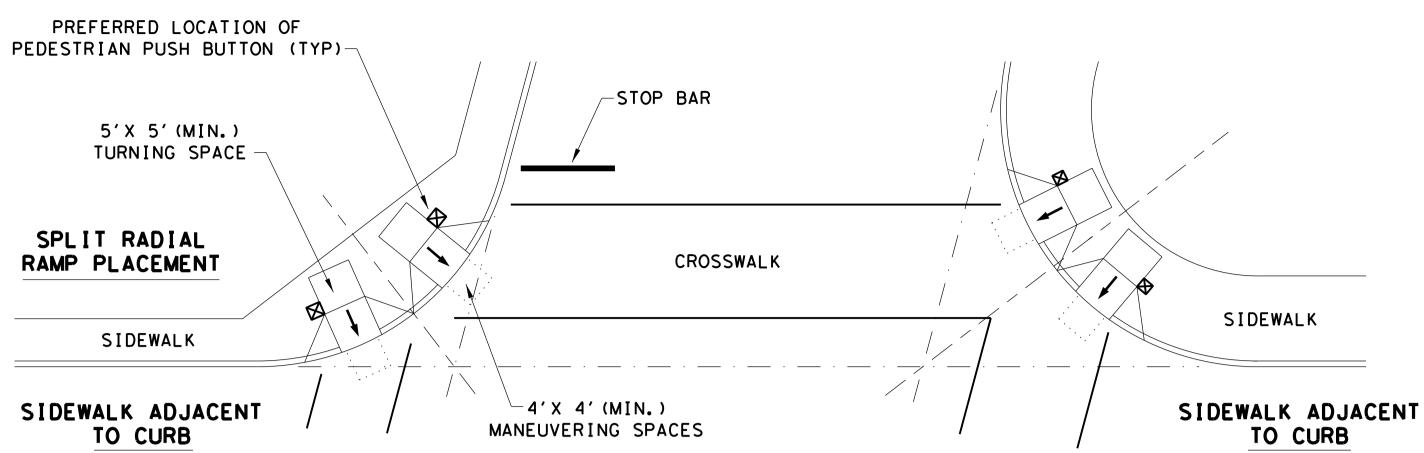
Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

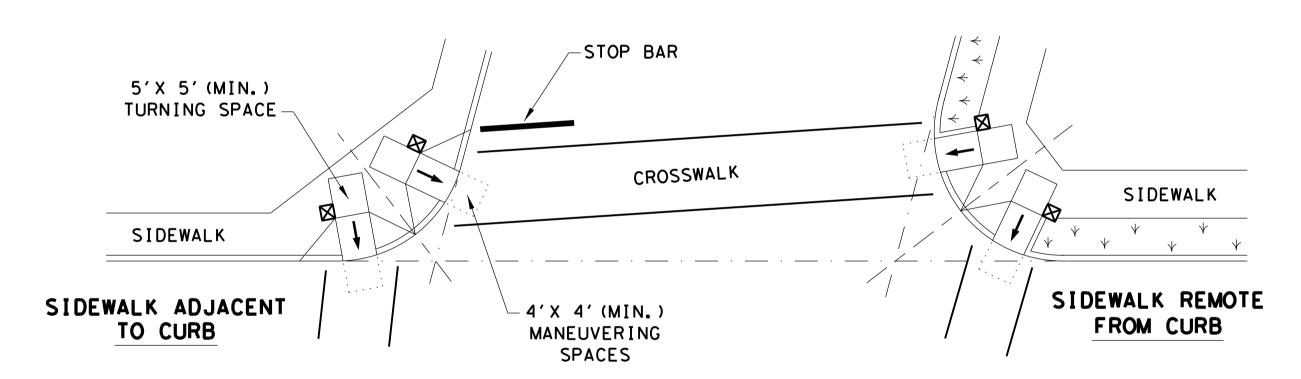
PED-18



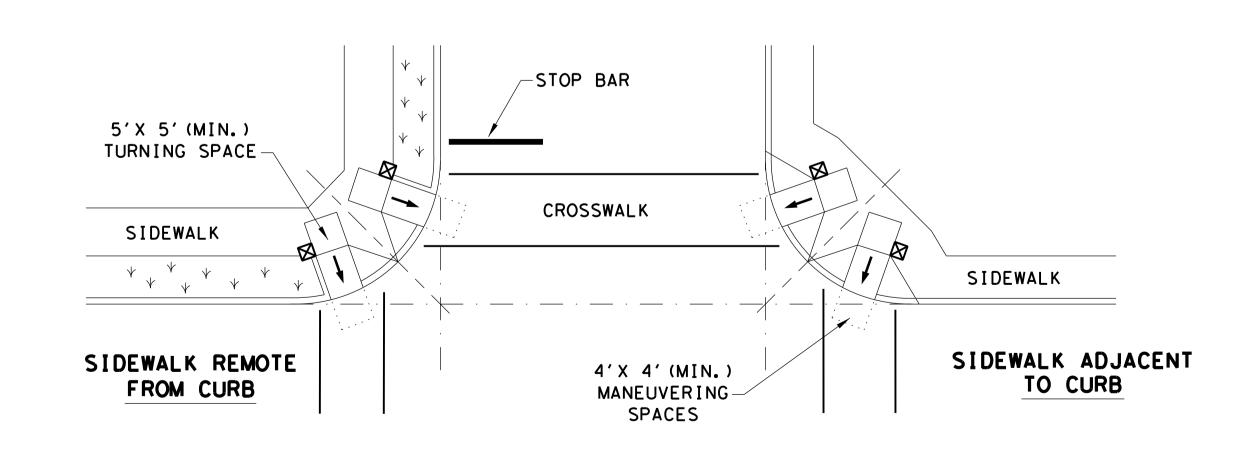




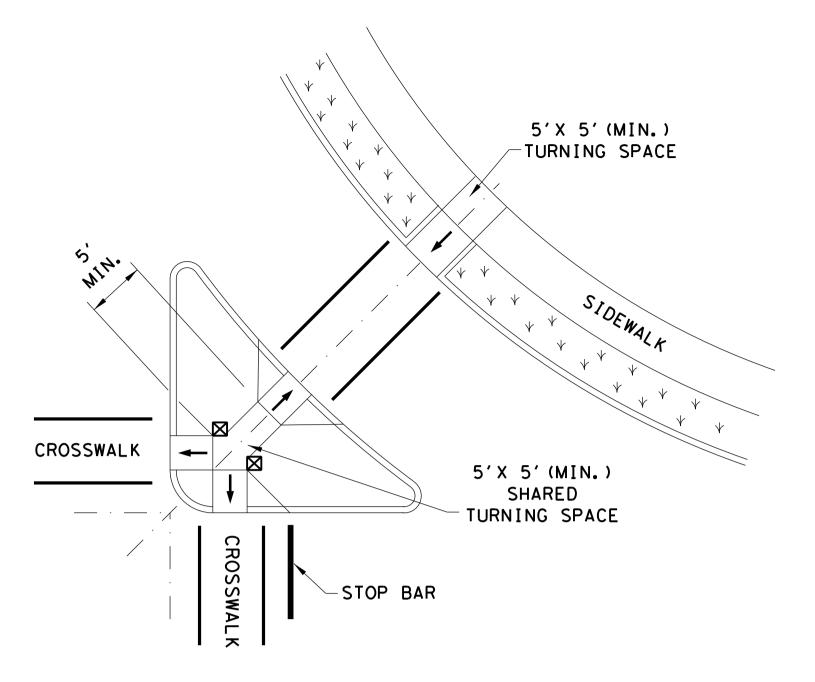
SKEWED INTERSECTION WITH "LARGE" RADIUS



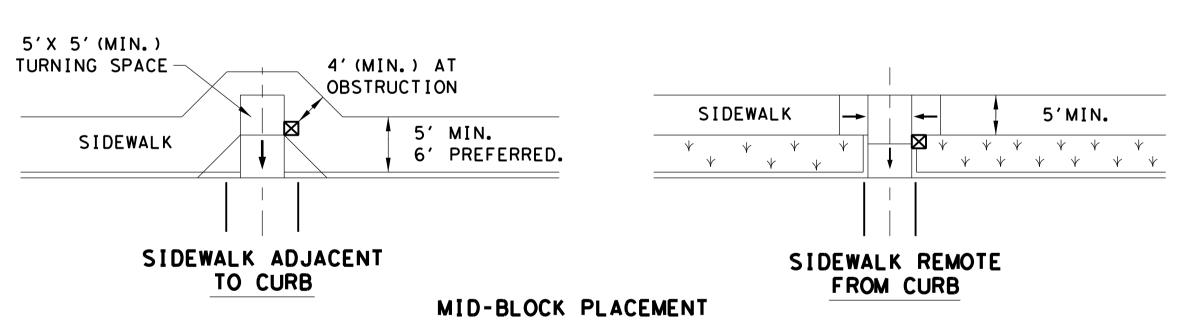
SKEWED INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION W/FREE RIGHT TURN & ISLAND



PERPENDICULAR RAMPS

 \boxtimes



SHEET 4 OF 4

Texas Department of Transportation

Design Division Standard PEDESTRIAN FACILITIES

PED-18

CURB RAMPS

LE: ped18	DN: T ×	DOT	DW: VP	CK:	KM	CK: PK & JG
T×DOT: MARCH, 2002	CONT	SECT	JOB			HIGHWAY
REVISIONS ISED 08,2005						
ISED 06, 2012 ISED 01, 2018	DIST		COUNT	Y		SHEET NO.
,						39 of 54

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.

TYPICAL INTERSECTION JOINT LOCATION

NOT TO SCALE

5' SIDEWALK #4 CONTINUOUS LONGITUDINAL BAR - NEW CONCRETE CURB - CONCRETE PAVEMENT

<u>TYPE I - 6" TO 12" CONCRETE CURB</u>

5' WIDE SIDEWALK 3/4" CHAMFER--*15 ROOFING FELT 1.5'X1.5' SQ 2" PVC WEEPHOLE (FOR WALLS 13"-18" HIGH ONLY) @ 24" OC _#4 @ 18" C-C -PROVIDE 1 CU FT OF GRAVEL BEHIND PVC WEEPHOLE SEE SIDEWALK DETAILS FOR REINFOREMENT #4 BARS @ 6" C-C

SPECIFICATION FOR GRAVEL DRAIN: SIEVE SIZE 3/4" 3/8" NO. 4 PERCENT FINER NO. 8 SPECIFICATION FOR HARDWARE CLOTH:
MIN WIDTH OF MESH OPENING = 1/16"
MAX WIDTH OF MESH OPENING = 3/32" SPECIFICATION FOR FILTER FABRIC:

MAX EQUIV OPENING SIEVE - NO. 70 SIEVE

MIN EQUIV OPENING SIEVE - NO. 100 SIEVE

LOCATIONS, LENGTHS & TRANSITIONS TO BE DETERMINED IN THE FIELD.

SIDEWALK RETAINING WALL SECTION

NTS

Dorrance Lane

4828 Loop Central Dr Ste 800

Meadows Place, Texas

Reconstruction Project

Houston TX 77081 713-622-9264

Texas P.E. Firm Registration No. F-754

PROJECT FOR

MARK DATE DESCRIPTION PROJECT NUMBER 10226224

ORIGINAL ISSUE

PROJECT MANAGER Ngoc Kim Le, P.E. PROJECT DESIGNER LANDSCAPE ARCHITECT CIVIL ENGINEER STRUCTURAL ENGINEER MECHANICAL ENGINEER ELECTRICAL ENGINEER INTERIOR DESIGNER EQUIPMENT PLANNER WAYFINDING DRAWN BY G.S. Fuller



SHEET NAME

MISCELLANEOUS DETAILS 1

A SCALE NTS

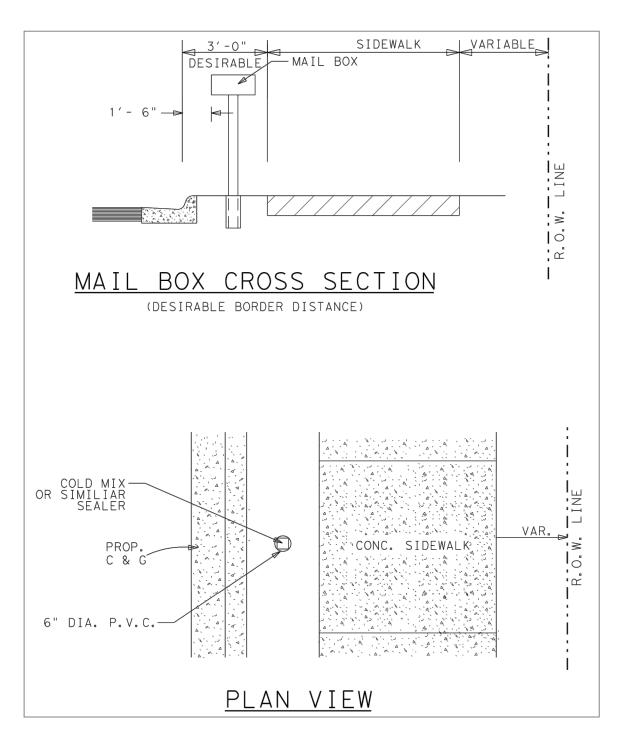
SHEET NUMBER

FILE NAME Miscellaneous Details 1

CURB NOTE:

AT SPECIFIC LOCATIONS (TO BE DETERMINED IN THE FIELD). IN REGARDS TO TREE ROOT PROTECTION AND PROPERTY ELEVATION, CURB HEIGHT VARIATIONS OF 6" OR 12" MAY BE REQUIRED. WHEN CURB HEIGHT REQUIRED IS 12" ADD A SECOND CONTINUOUS #4 DEF. BAR AND LENGTHEN VERTICAL STEEL TO MAINTAIN MAX. 3" FROM TOP OF CURB TO TOP OF STEEL.

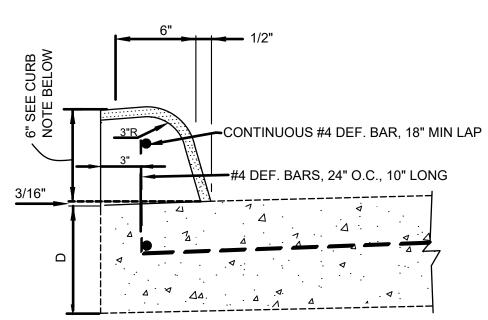
VARIABLE HEIGHT SIDEWALK CURB



MAILBOX

MAILBOX NOTE:

ALL MAILBOX INSTALLATIONS SHALL COMPLY WITH CURRENT U.S. POSTAL SERVICE REQUIREMENTS.



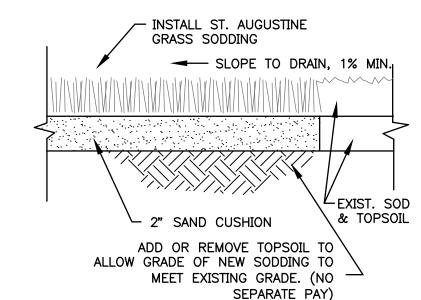
CURB NOTE:

MORTAR FINISH NOT REQUIRED WHEN CURB IS POURED BY A MACHINE, BUT CURB WILL HAVE THE SAME OUTSIDE DIMENSIONS.

CONCRETE CURB

CURB NOTE:

AT SPECIFIC LOCATIONS, IN REGARDS TO TREE ROOT PROTECTION, PLANS CALL FOR CURB HEIGHT VARIATIONS UP TO 12". WHEN CURB HEIGHT EXCEEDS 8" ADD A SECOND CONTINUOUS #4 DEF. BAR AND LENGTHEN VERTICAL STEEL TO MAINTAIN MAX. 3" FROM TOP OF CURB TO TOP OF STEEL.



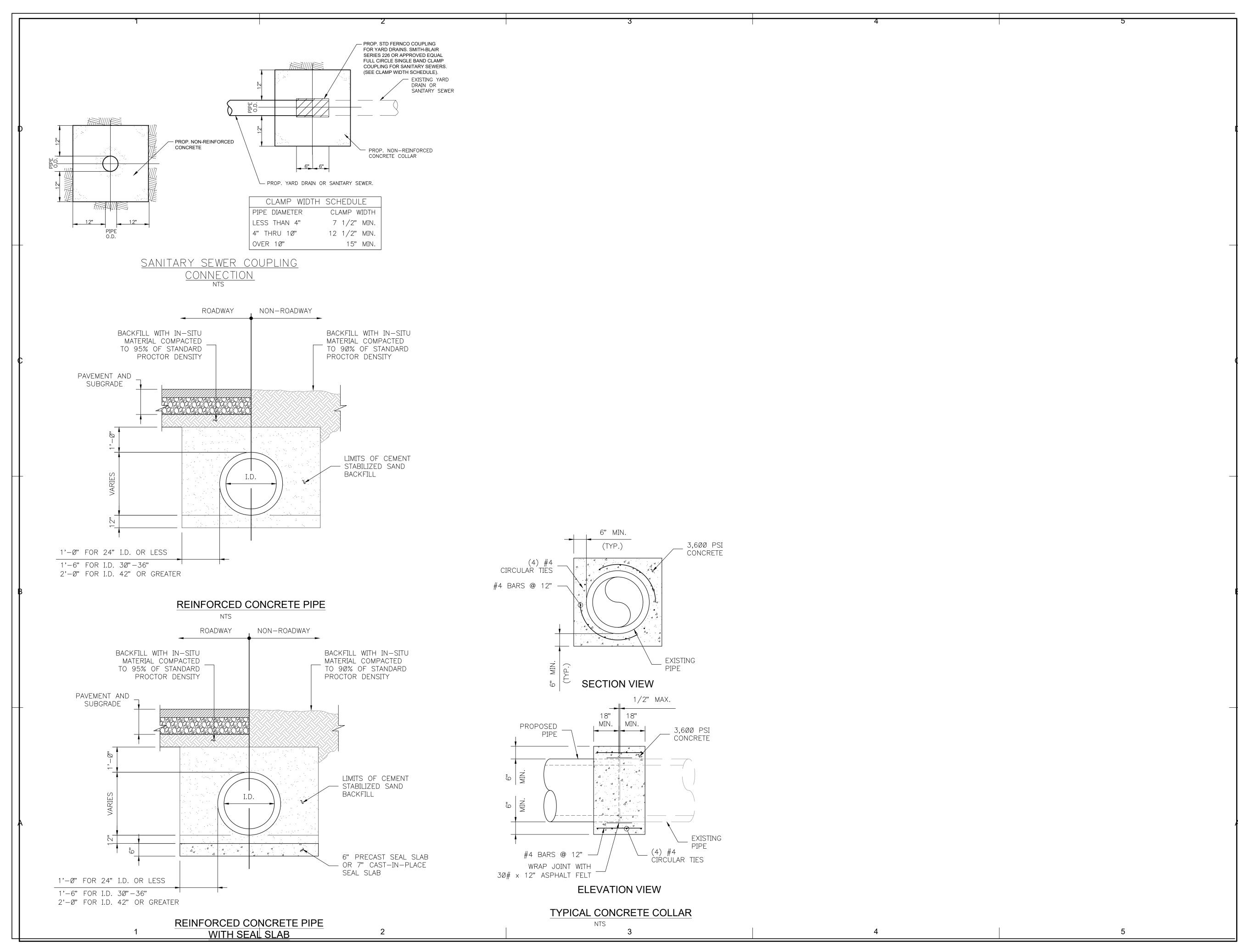
1. SODDING SHALL BE ON AREAS DISTURBED BY CONSTRUCTION.

- 2. SODDING LIMITS AT DITCHES SHALL BE THOSE AREAS DISTURBED BY THE GRADING PROCESS.
- 3. CONTRACTOR TO REPAIR SODDING IN THE AREAS DAMAGED BY CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT COST.
- 4. IN THE EVENT EXISTING LANDSCAPING OTHER THAN GRASS IS WITHIN THESE AREAS, THE CONTRACTOR SHALL REBUILD OR REINSTALL THE LANDSCAPING OF THE AREA AFTER CONSTRUCTION IN AN EQUAL OR BETTER CONDITION.

TYPICAL GRASS SODDING DETAILS

NOT TO SCALE

С



Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project





10402813

MARK DATE DESCRIPTION

PROJECT NUMBER

PROJECT MANAGER Ngoc Kim Le, P.E.
PROJECT DESIGNER
PROJECT ARCHITECT
LANDSCAPE ARCHITECT
CIVIL ENGINEER
STRUCTURAL ENGINEER
MECHANICAL ENGINEER
ELECTRICAL ENGINEER
INTERIOR DESIGNER
EQUIPMENT PLANNER
WAYFINDING
DRAWN BY G.S. Fuller



SHEET NAME

STORM SEWER DETAILS 1

SCALE

NTS

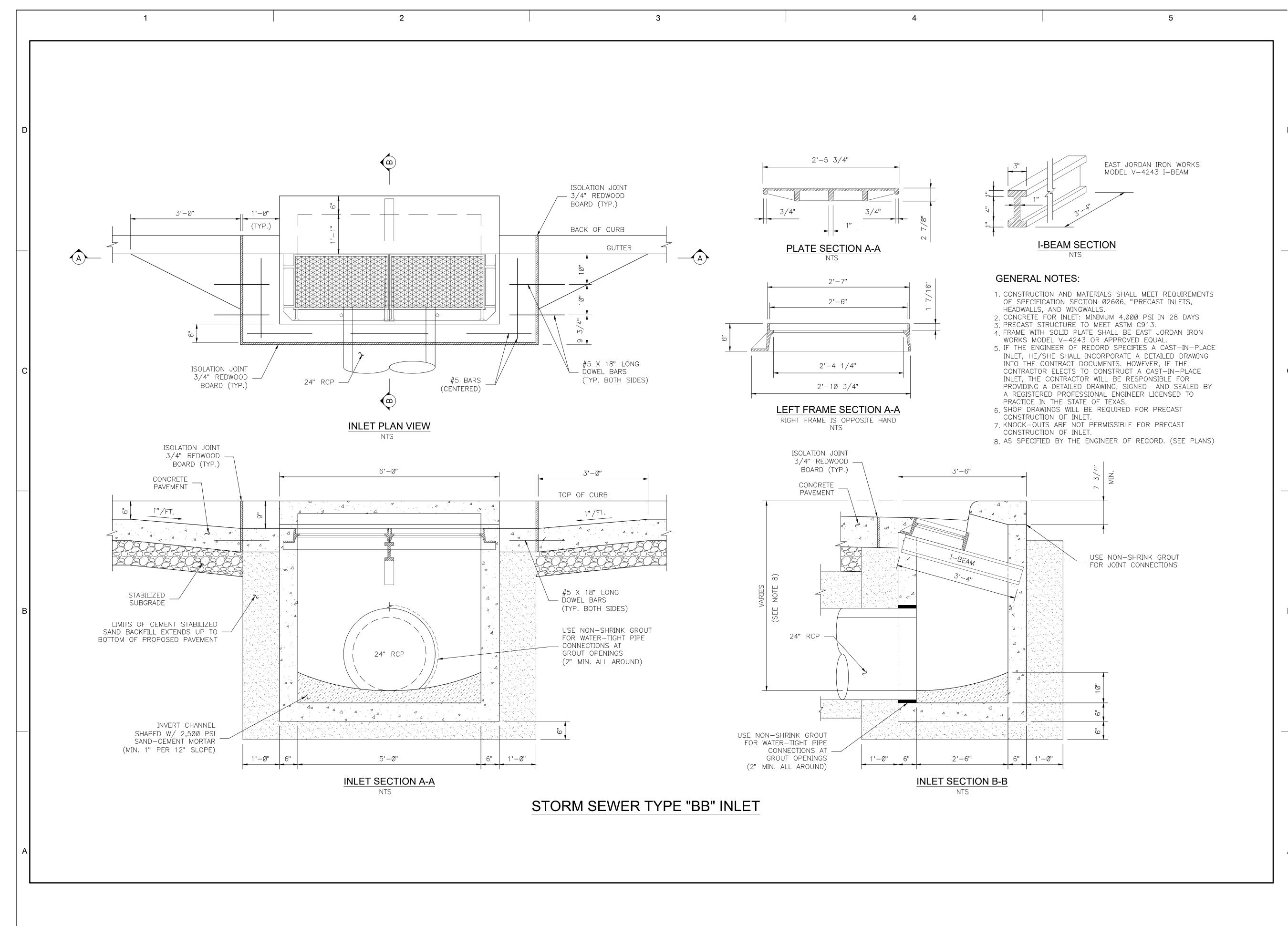
SHEET NUMBER

41

54

FILE NAME

STORM SEWER DETAILS





Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project



MARK DATE DESCRIPTION

PROJECT NUMBER

10402813 ORIGINAL ISSUE PROJECT MANAGER Ngoc Kim Le, P.E. PROJECT DESIGNER PROJECT ARCHITECT LANDSCAPE ARCHITECT CIVIL ENGINEER STRUCTURAL ENGINEER MECHANICAL ENGINEER ELECTRICAL ENGINEER INTERIOR DESIGNER EQUIPMENT PLANNER WAYFINDING DRAWN BY G.S. Fuller



SHEET NAME

STORM SEWER **DETAILS 2**

SCALE

NTS

SHEET NUMBER

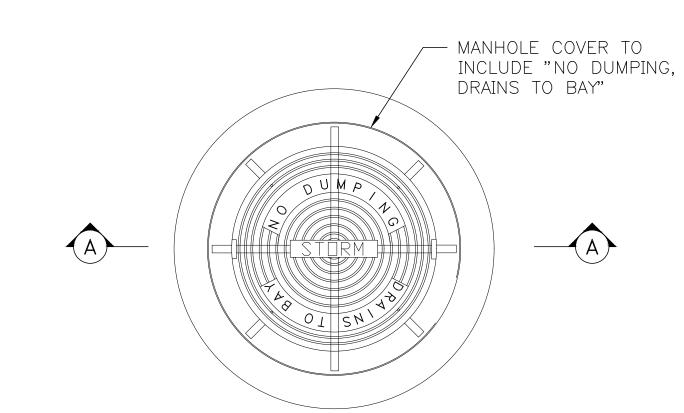
FILE NAME

STORM SEWER DETAILS

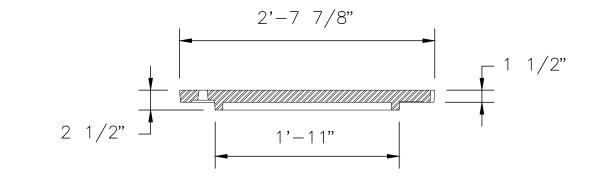
—Formed opening for prop storm sewer trunk line (size varies, see plans) See plans for applicable main trunk & lateral sewer layout -Formed opening for prop storm sewer laterals (size varies, see plans) <u>PLAN</u>

PRECAST STORM SEWER JUNCTION BOX NOTES:

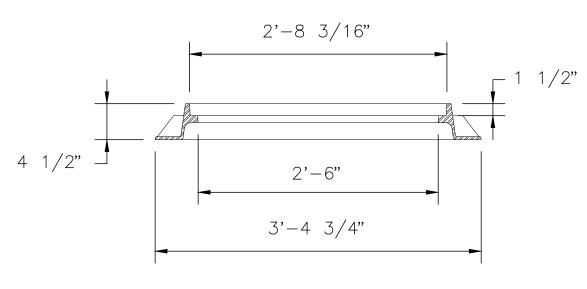
- All Precast Storm Box Manholes Shall Be Constructed Of 4000 Psi Concrete, Reinforced 60000 Psi Hs 20 Loading.
- 2. Where Storm Sewer Lead & TrunkmainDepths Allow The Top Of The Box To Be At Or Greater Than A Min. 4'-0' Depth, Cone Sections May Be Used. Where Leads & Main Depths Require The Box Manhole Top To Be Less Than 4'-0', Contractor shall use flat top and rings.
- 3. In Cases Where The Top Slabs May Encroach Into Proposed Pavement Subgrade, The Subgrade Over The Box Shall Be Eliminated And The Proposed Concrete Pavement Shall Be Poured In Required Extra Thickness To The Top Of The Box As Noted On This Sheet.
- Top And Bottom Slabs Along With Wall Thickness And Related Structural Steel including cones or flat top and rings, Shall Be Per Manufacturer, signed and sealed by an Engineer licensed in the state of Texas for each proposed junction box on the plans. Provide location with street name, Station and Offset.



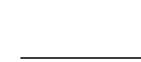
PLAN VIEW FRAME AND COVER NTS



COVER SECTION A-A NTS



FRAME SECTION A-A NTS



PROJECT FOR

713-622-9264

Texas P.E. Firm Registration No. F-754

Meadows Place, Texas

4828 Loop Central Dr Ste 700 Houston TX 77081

Dorrance Lane Reconstruction Project



MARK DATE DESCRIPTION PROJECT NUMBER 10402813

	ORIGINAL ISSUE	
	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
В	INTERIOR DESIGNER	
ט	EQUIPMENT PLANNER	
	WAYFINDING	
	DRAWN BY	G.S. Fuller



SHEET NAME

STORM SEWER **DETAILS 3**

SCALE

SHEET NUMBER

FILE NAME STORM SEWER DETAILS

-32" Dia Precast Grade Rings As Req Standard Manhole Frame & Cover. Prop Conc Pvmt -#4 Bars 8" Lg • 12" O.C. Prop Lime — Stab Subgrade Form Flow Invert W/ Grout Fill Compacted Cement-Stabilized Sand SECTION A-A

PRECAST STORM SEWER JUNCTION BOX (JCTBOX(COMPL)(PJB)

CEMENT

STABILIZED BEDDING

& BACKFILL -

STORM SEWER PLUG

--- PROPOSED STORM SEWER STUBOUT OR EXISTING STORM SEWER TO

- PROPOSED CONCRETE PAVEMENT

- PROPOSED STABILIZED

SUBGRADE

- COMPACTED

FACING

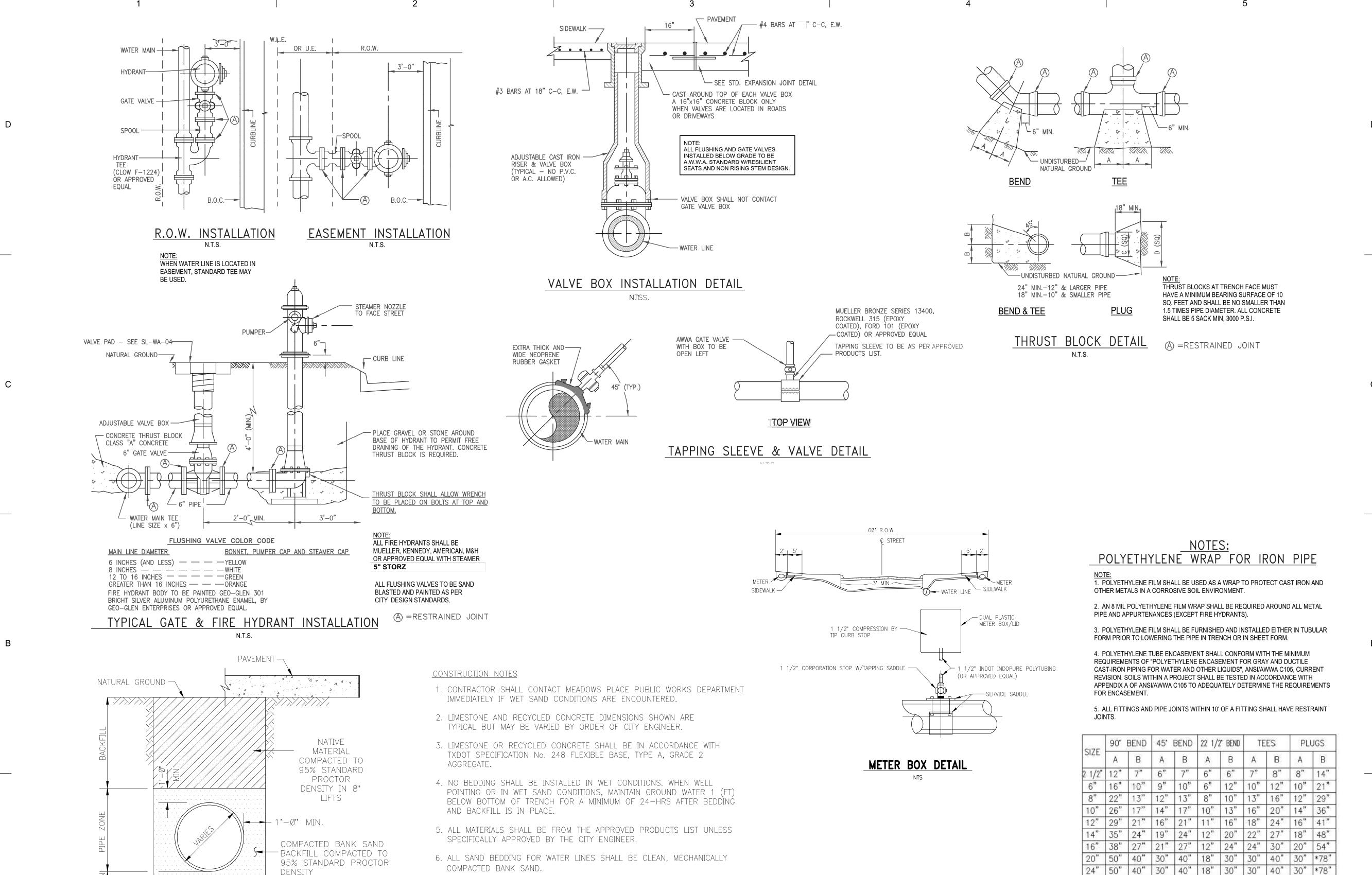
TRENCH

SELECT BACKFILL

— 12" BRICK AND MORTAR PLUG

PLUGGED

(SEE PLANS)



Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project

Meadows-

MARK

	PROJECT NUMBER	10402813
	ORIGINAL ISSUE	
_		
	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
В	INTERIOR DESIGNER	
ט	EQUIPMENT PLANNER	
	WAYFINDING	
	DRAWN BY	G.S. Fuller

DESCRIPTION



SHEET NAME

WATER DETAILS 1

A SCALE

SHEET NUMBER

STORM SEWER DETAILS

NTS

FILE NAME

WATER LINE BEDDING AND BACKFILL

P.V.C. PIPE BEDDING & BACKFILL

*SEE CONSTRUCTION NOTES

- COMPACTED BANK SAND.
- 7. REFER TO: MANHOLE DETAILS, GENERAL, WATER CROSSING, WATER DISTRIBUTION DETAILS AND NOTES.

IF ADDITIONAL BEDDING AND BACKFILL IS APPROPRIATE.

8. ALL BEDDING WILL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. 9. A GEOTECHNICAL REPORT MAY BE REQUIRED TO ANALYZE THE BEARING CAPACITY OF EXISTING SOILS AND MAKE A DETERMINATION

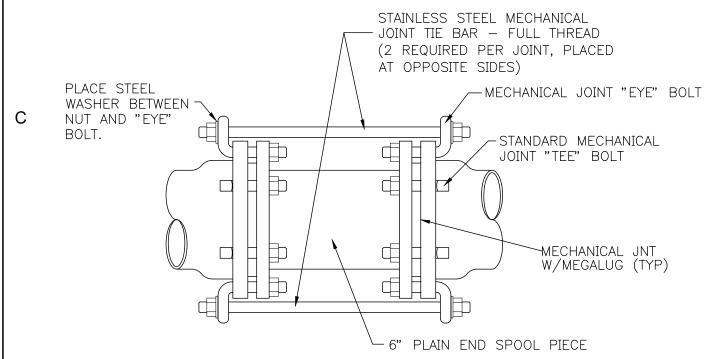
48" 36" 48" 20" 36" 36" 48" 36" *96" BENDS, TEES & PLUGS FOR PIPE OF VARIOUS SIZES

1" MUELLER NO. 1503-1
OR EQUAL

1" QUARTER BEND COUPLING,
THREADED & COMPRESSION
CONNECTION OUTLETS.
FURNISH & INSTALL WHEN
REQ'D BY FIELD CONDITIONS
(NO SEPARATE PAYMENT FOR
QUARTER BEND COUPLINGS)

1" COPPER TUBING

CURB STOP



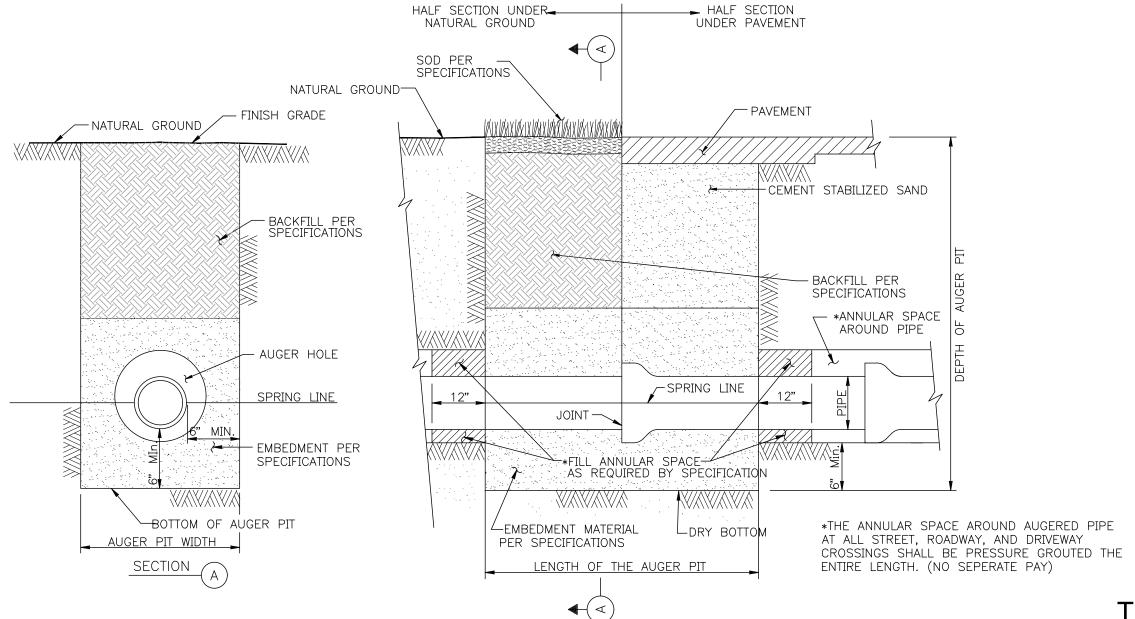
NOTES:

- 1. CLOSE CORP. STOPS & REMOVE 3/4" COPPER JUMPER AND BLOW OFF AFTER SATISFACTORY DISINFECTION AND TESTING.
- 2. TO BE USED WHEN STEEL SECTION MUST BE TESTED SEPARATELY.
- 3. INSULATED JOINTS ARE TO BE USED WHEN CONNECTING STEEL SECTION TO ANOTHER TYPE METAL PIPE.

MECHANICAL RESTRAINT

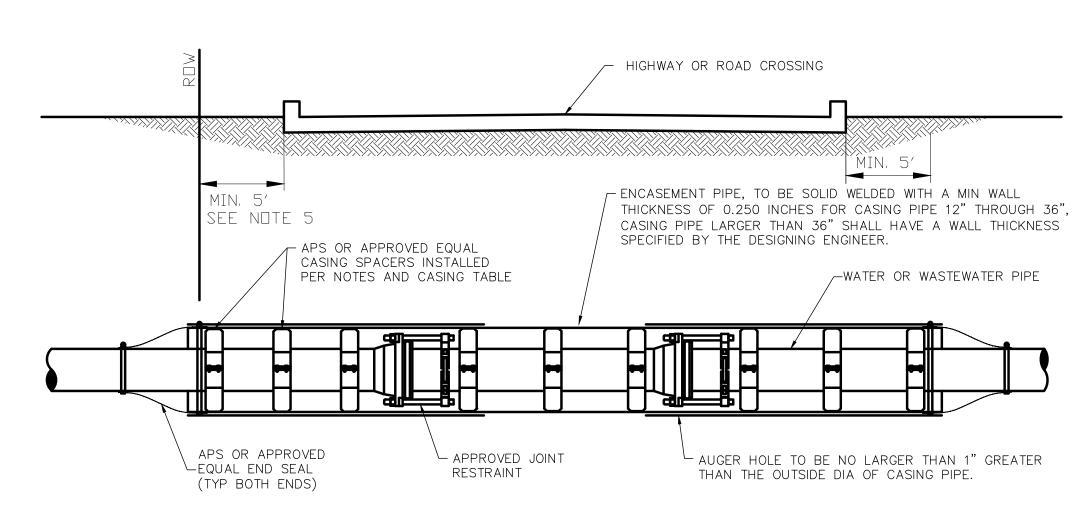
NOTES:

- 1. SPACERS FOR CARRIER PIPE SHALL BE STAINLESS STEEL, NEOPRENE OR APPROVED EQUAL AND SHALL BE 1 INSTALLED TO CENTER CARRIER PIPE WITHIN CASING WITH A MAX TOLERANCE OF "BETWEEN RUNNER AND 2 CASING INSIDE AS WELL AS PREVENT THE CARRIER PIPE FROM RESTING ON THE BELLS WITHIN THE CASING. SEE CASING TABLE FOR SPACER DISTANCE AND NUMBER OF SPACERS.
- 2. SPACERS TO BE PLACED A MIN OF 1' BACK FROM EACH JOINT THAT FALLS WITHIN CASING, A GREATER SET BACK MAY BE REQUIRED FOR LARGER PIPE. SEE CASING TABLE FOR ADDITIONAL INFO ON SPACING OF
- 3. WHEN INSTALLING GRAVITY PIPE WITH CASING CONTRACTOR SHALL TAKE INTO CONSIDERATION PIPE GRADE SO THAT THE SEWER PIPE MAINTAINS THE PROPER FALL.
- 4. JOINT RESTRAINTS ARE REQUIRED ON ALL JOINTS THAT FALL UNDER OR WITHIN 10' OF HIGHWAY CROSSINGS REGARDLESS OF PIPE MATERIAL, CASED OR NOT.
- 5. THE LENGTH OF CASING MAY VARY DEPENDING ON THE TYPE OF ROADWAY. THE CASING SHALL BE EXTENDED FROM ROW TO ROW FOR STATE HIGHWAYS, THOROUGHFARES, AND COLLECTOR STREETS.



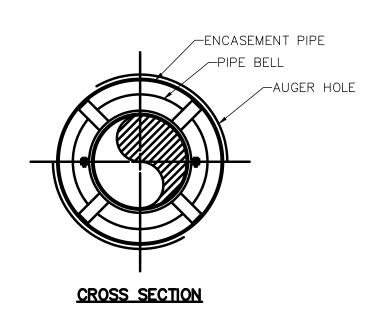
AUGER PIT AND AUGER HOLE

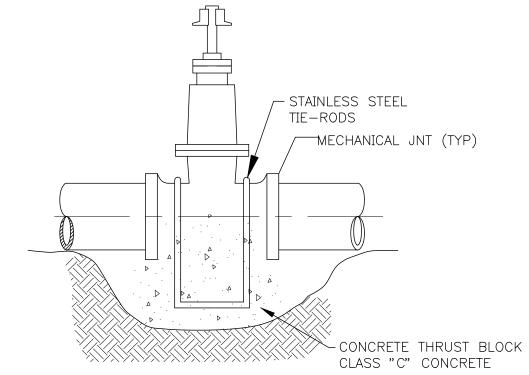
ELEVATION



LONGITUDINAL SECTION

	CASING TABLE	
NOMINAL PIPE SIZE DIA IN INCHES	MIN CASING SIZE INSIDE DIA IN INCHES	MAX SKID SUPPORT SPACING IN FEET
4	12	4.7
6	12	6.3
8	16	7.4
10	18	8.5
12	20	9.6
15 & 16	22	11.0
18	26	12.0
20 & 21	30	12.0
24	33	12.0
27	36	12.0





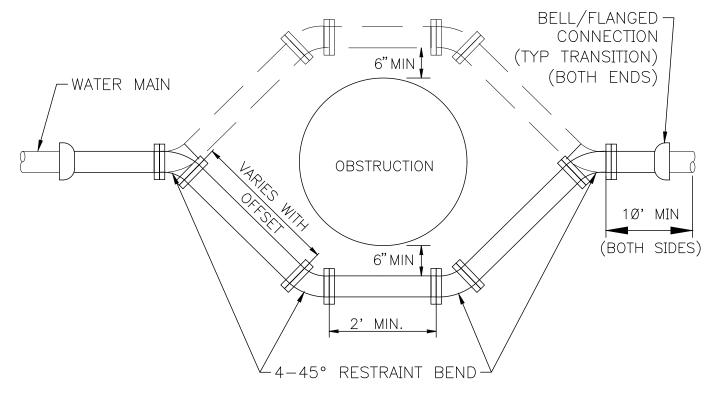
THRUST BLOCK OF IN LINE VALVES SECTION

MIN PIPE WAL	L THICKNESS
4"	- 0.250"
6"	- 0.280"
8"	- 0.322"
12" AND LARGER	- 0.375"

FOR A LINE TO PASS OVER AN OBSTRUCTION RATHER THAN UNDER, IT MUST HAVE ADEQUATE COVER AND BE APPROVED BY THE CITY.

NOTES

- 1. PIPE MATERIAL SHALL BE AWWA C900 PVC, DR-14, 200 PSI WITH INTEGRAL PVC RESTRAINED JOINTS.
- 2. OFFSET ASSEMBLY MUST PASS OVER THE OBSTRUCTION AS LONG AS THE MINIMUM CLEARANCE IS MAINTAINED. SPECIFIC APPROVAL FROM THE CITY MUST BE GRANTED FOR THE OFFSET TO PASS UNDER THE OBSTRUCTION.
- 3. MATERIAL AND COATINGS SHALL BE IN ACCORDANCE WITH WATER MAIN STANDARD SPECIFICATIONS.
- 4. RESTRAIN EXISTING PIPING BEYOND OFFSET SECTION AS REQUIRED TO PREVENT MOVEMENT.
- 5. ALL PVC PRODUCTS MUST BE LISTED ON CITY APPROVED PRODUCTS LIST.



PVC WATER PIPE OFFSET ASSEMBLY

N.T.S.



4828 Loop Central Dr Ste 7 Houston TX 77081 713-622-9264

Texas P.E. Firm
Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance LaneReconstruction Project





C

	PROJECT NUMBER	10402813
	ORIGINAL ISSUE	
_	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
	INTERIOR DESIGNER	
	EQUIPMENT PLANNER	
	WAYFINDING	
	DRAWN BY	G.S. Fuller

DESCRIPTION



SHEET NAME

MARK

WATER DETAILS 2

A SCALE NTS

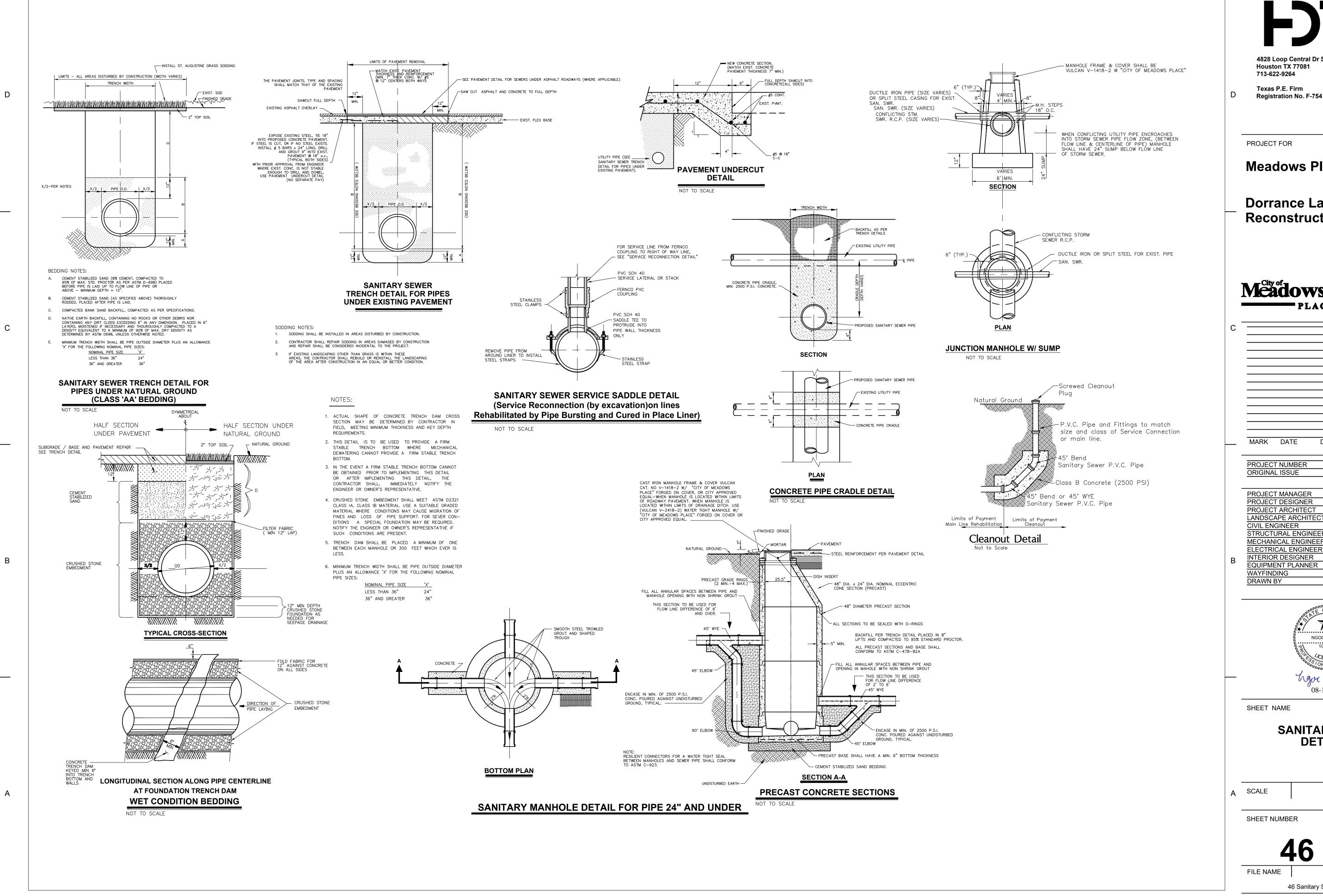
SHEET NUMBER

45 of

FILE NAME

STORM SEWER DETAILS

3



4828 Loop Central Dr Ste 700

Meadows Place, Texas

Dorrance Lane Reconstruction Project



DESCRIPTION

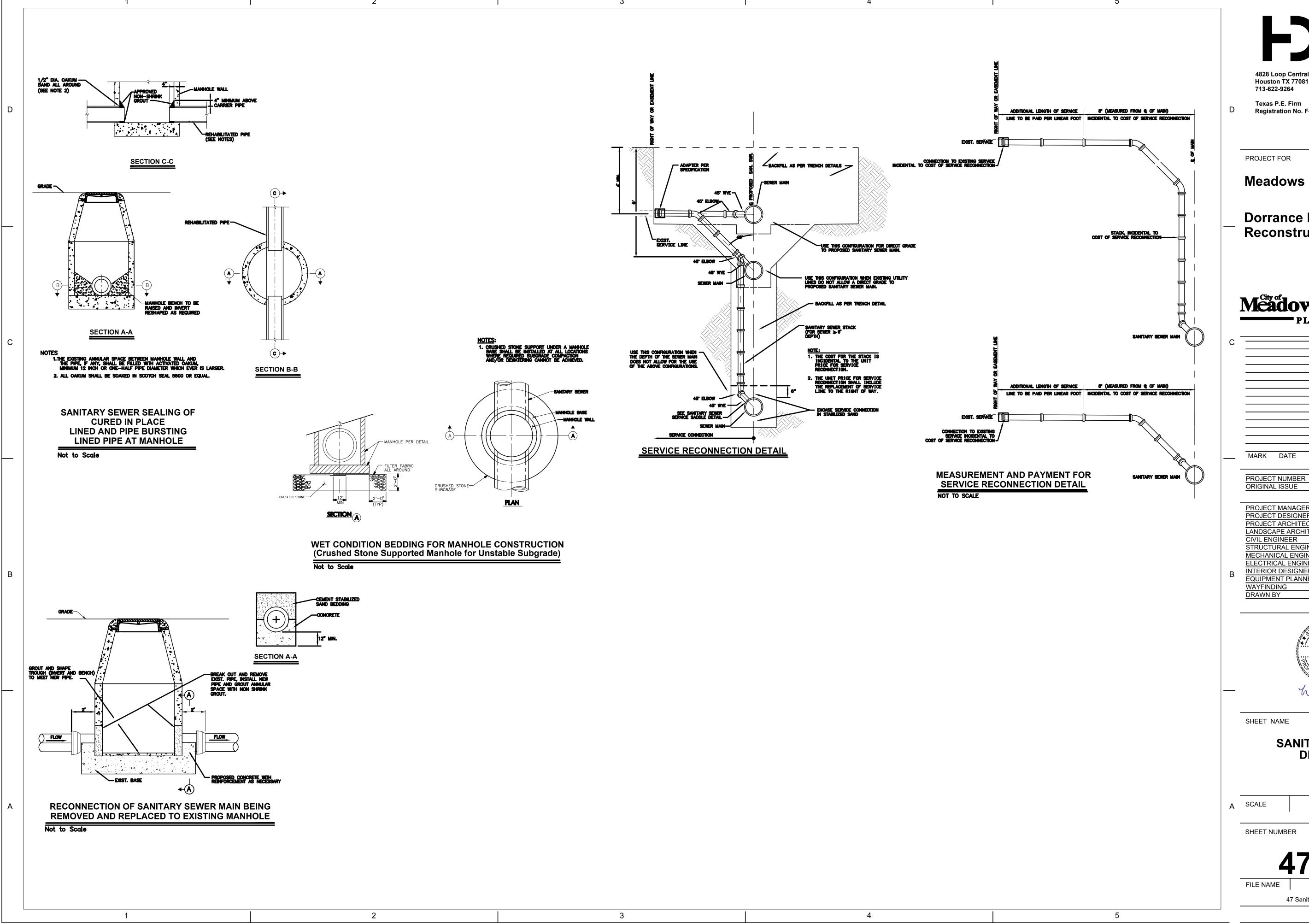
10402813 PROJECT MANAGER Ngoc Kim Le, P.E. PROJECT DESIGNER PROJECT ARCHITECT LANDSCAPE ARCHITECT STRUCTURAL ENGINEER MECHANICAL ENGINEER LECTRICAL ENGINEER INTERIOR DESIGNER EQUIPMENT PLANNER G.S. Fuller



SANITARY SEWER DETAILS 1

AS NOTED

46 Sanitary Sewer Details



Texas P.E. Firm Registration No. F-754

Meadows Place, Texas

Dorrance Lane Reconstruction Project

Meadows 7

DESCRIPTION

ORIGINAL ISSUE PROJECT MANAGER
PROJECT DESIGNER Ngoc Kim Le, P.E. PROJECT ARCHITECT
LANDSCAPE ARCHITECT CIVIL ENGINEER STRUCTURAL ENGINEER MECHANICAL ENGINEER ELECTRICAL ENGINEER INTERIOR DESIGNER EQUIPMENT PLANNER WAYFINDING G.S. Fuller

10402813



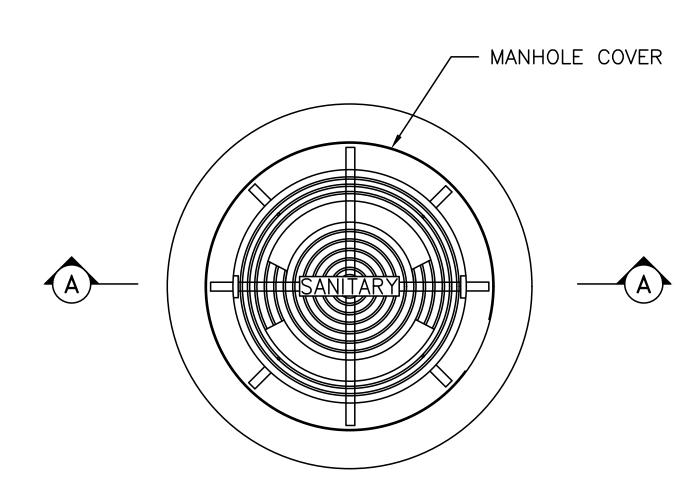
SHEET NAME

SANITARY SEWER DETAILS 2

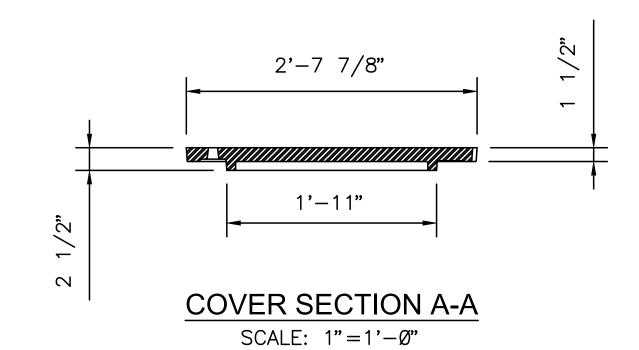
AS NOTED

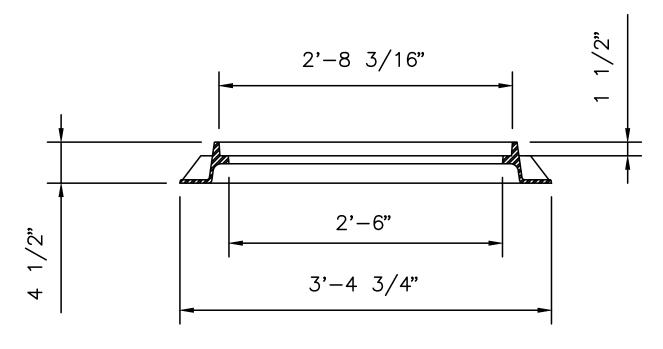
SHEET NUMBER

47 Sanitary Sewer Details



PLAN VIEW FRAME AND COVER SCALE: $1"=1'-\emptyset"$





FRAME SECTION A-A SCALE: $1"=1'-\emptyset"$

GENERAL NOTES:

С

- 1. CONSTRUCTION AND MATERIALS SHALL MEET REQUIREMENTS OF SPECIFICATION SECTION Ø26Ø1 "PRECAST CONCRETE MANHOLES".
- 2. CONCRETE FOR JUNCTION BOX: MINIMUM 4,000 PSI IN 28 DAYS
- 3. HS-2Ø LOADING; MANHOLE DESIGN SHALL MEET OR EXCEED ASTM C478 AND ASTM C913 REQUIREMENTS.
- 4. JOINT SEALANT: RAM-NEK GASKET MATERIAL
- 5. FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS MODEL V-1420 OR APPROVED EQUAL.
- 6. SHOP DRAWINGS WITH MANUFACTURER'S CERTIFICATION SHALL BE SUBMITTED FOR ENGINEER'S APPROVAL.



Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project



DESCRIPTION

	PROJECT NUMBER	10402813
	ORIGINAL ISSUE	
-	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
2	INTERIOR DESIGNER	
,	EQUIPMENT PLANNER	
	WAYFINDING	
	DRAWN BY	G.S. Fuller



SHEET NAME

SANITARY SEWER DETAILS 3

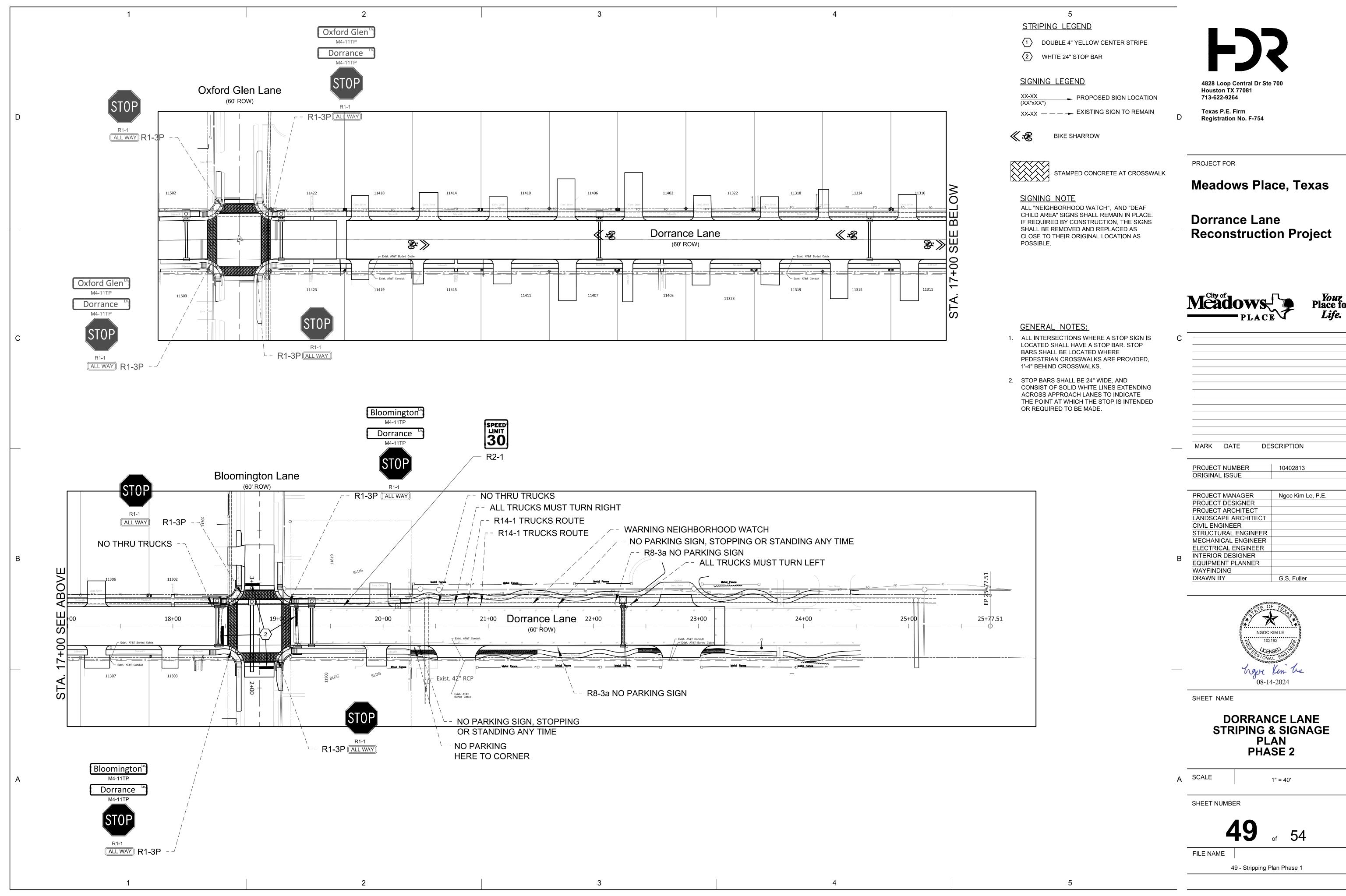
A SCALE

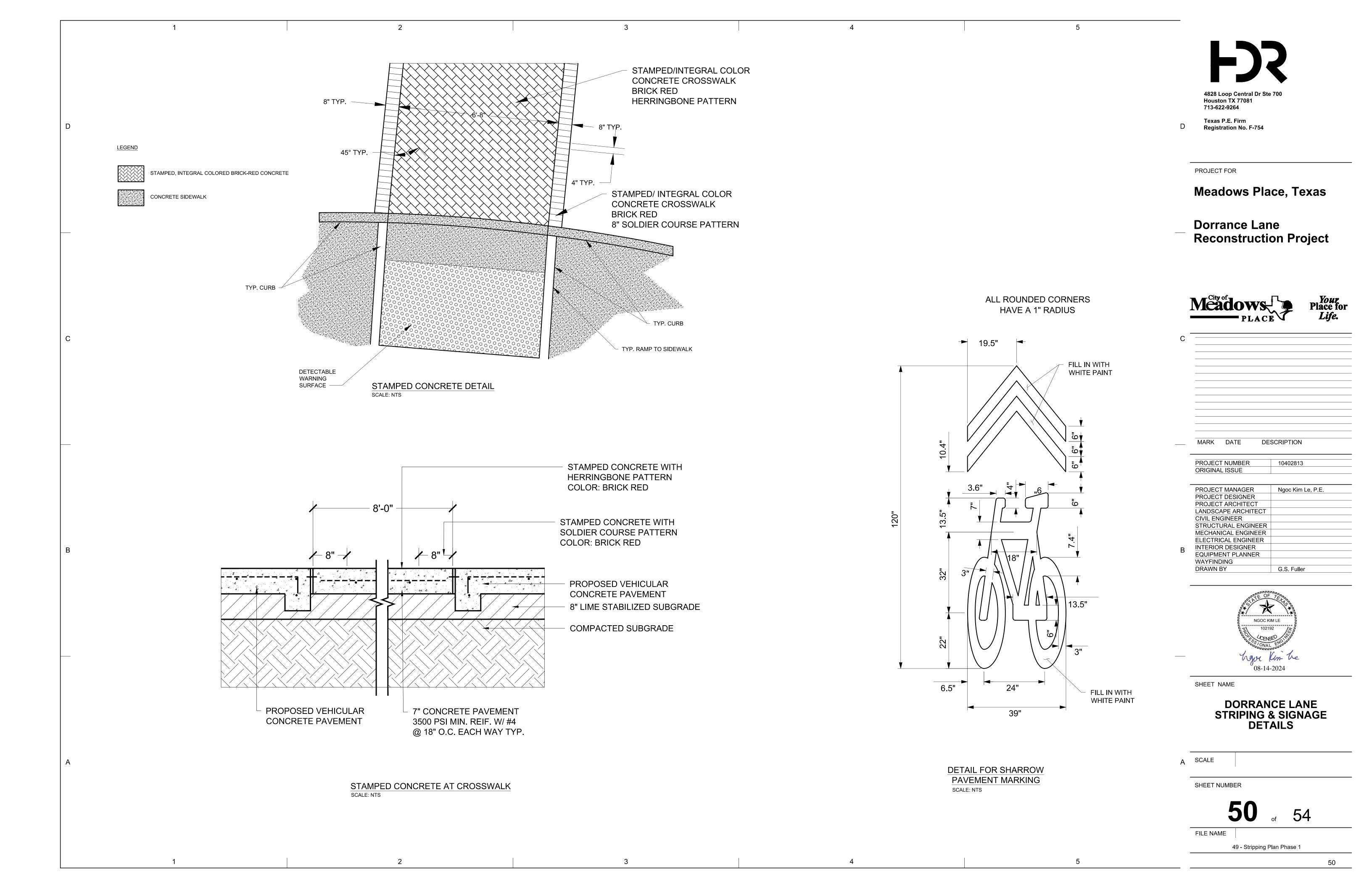
AS NOTED

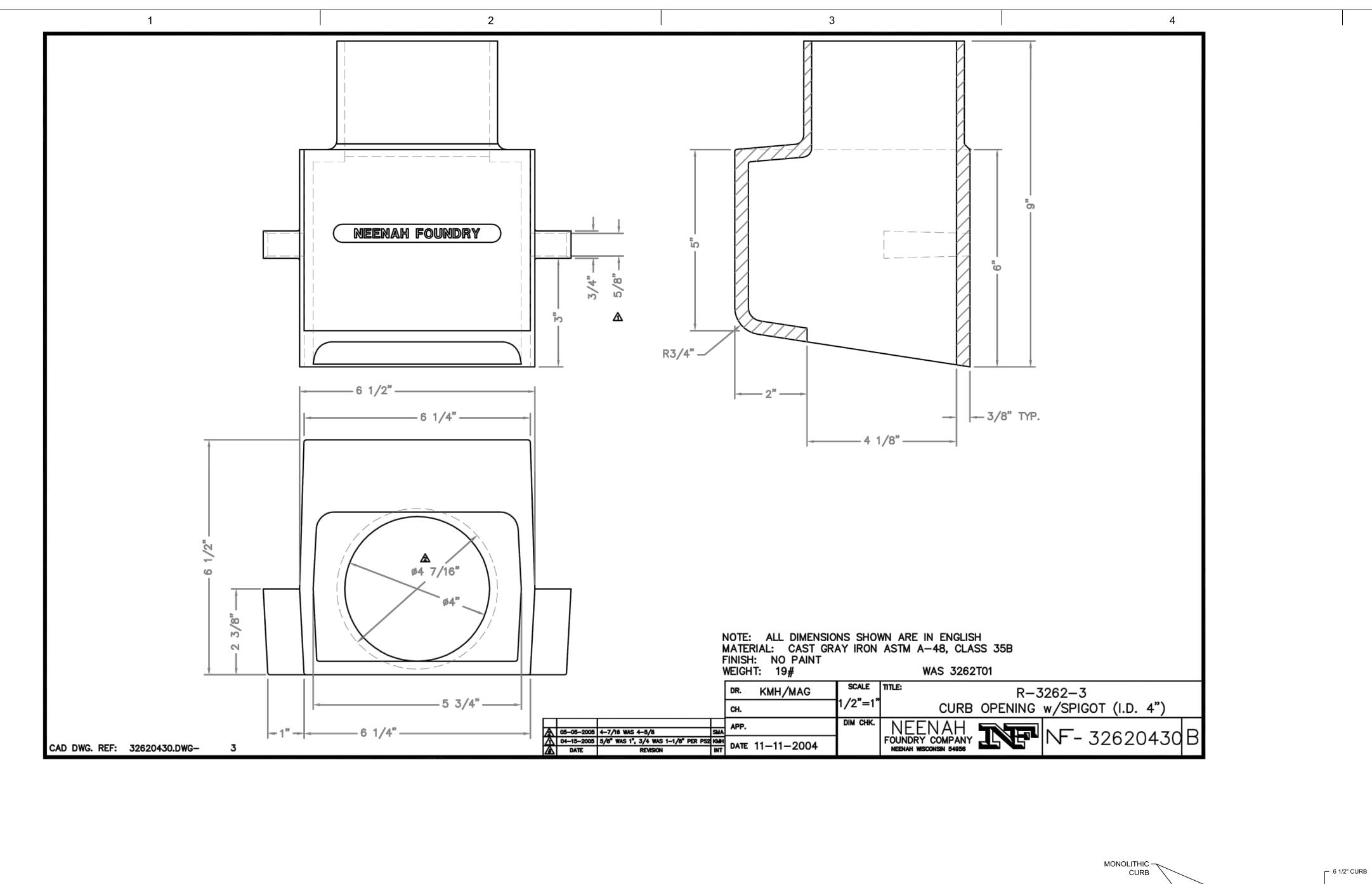
SHEET NUMBER

FILE NAME

48 Sanitary Sewer Details 3









Texas P.E. Firm Registration No. F-754

PROJECT FOR

Meadows Place, Texas

Dorrance Lane Reconstruction Project



	MARK	DATE	DESCRIPTION	
-				

	PROJECT NUMBER	10226224
	ORIGINAL ISSUE	
	PROJECT MANAGER	Ngoc Kim Le, P.E.
	PROJECT DESIGNER	
	PROJECT ARCHITECT	
	LANDSCAPE ARCHITECT	
	CIVIL ENGINEER	
	STRUCTURAL ENGINEER	
	MECHANICAL ENGINEER	
	ELECTRICAL ENGINEER	
В	INTERIOR DESIGNER	
Ъ	EQUIPMENT PLANNER	
	WAYFINDING	
	DRAWN BY	G.S. Fuller



SHEET NAME

EXIST. DRAIN

CURB DRAIN DETAIL

	SHEET NUMBE	ER	
A	SCALE	AS	SNOTED

FILE NAME

50 MC-24-19

REGRADE ROW FOR POSITIVE DRAINAGE TO STREET 4" PVC @ 1.0% MIN. SLOPE CONNECT TO —/ EXIST. DRAIN FERNCO
COUPLING **CURB DRAIN DETAIL**

SEE CURB DETAIL FOR REINFORCEMENT

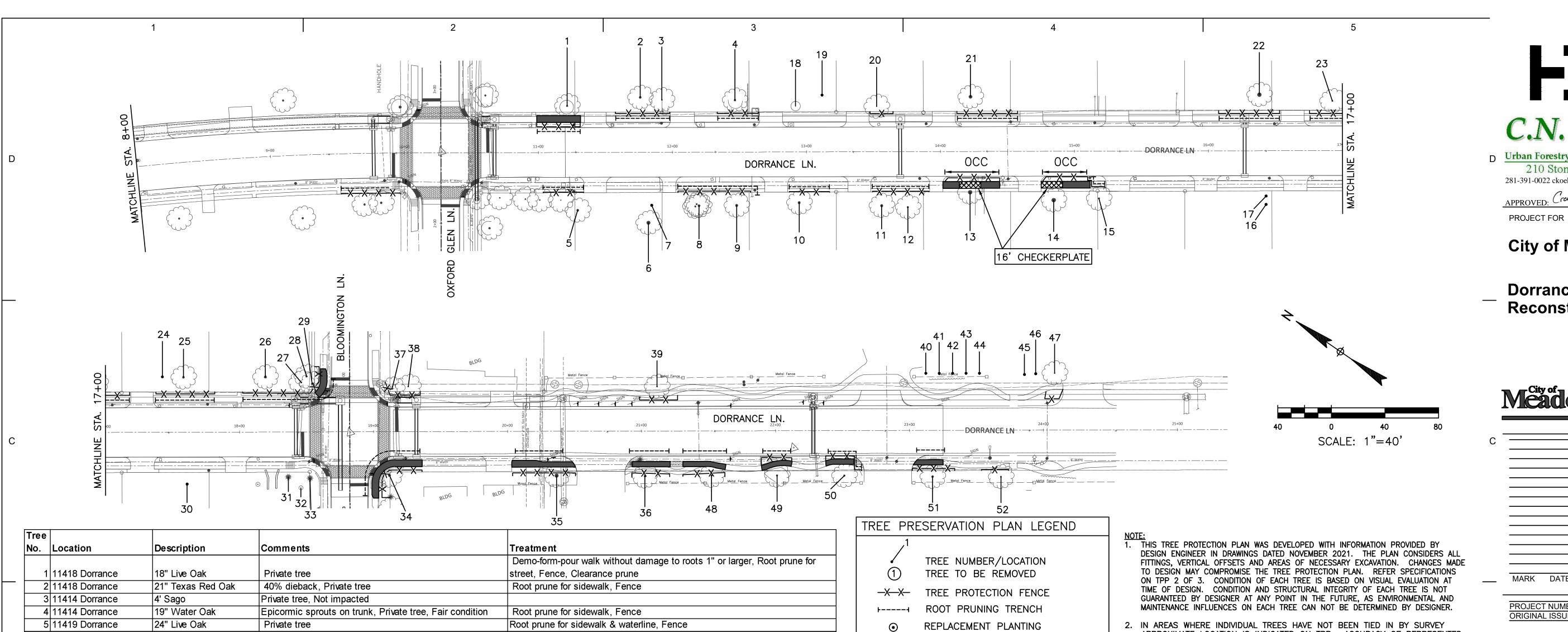
PROP. CONC. PAVEMENT

NEENAH — R-3262-3 CURB OPENING

GUTTER

5' CURB TRANSITION -

INSTALL FLUSH W/GUTTER —



 IN AREAS WHERE INDIVIDUAL TREES HAVE NOT BEEN TIED IN BY SURVEY APPROXIMATE LOCATION IS INDICATED ON TPP. ACCURACY OF REPRESENTED LOCATION CAN'T, AND IS NOT GUARANTEED BY DESIGNER.

3 11414 Dorrand 4 11414 Dorrand	e 19" Water Oak	Private tree, Not impacted Epicormic sprouts on trunk, Private tree, Fair condition	Dock marine for eiderrelly Ferres
		Enjoyrmic sprouts on trunk Private tree Fair condition	Doct prince for cidewalk, Force
	0.411.1.1.1	Epiconine opioate on traint, i mate tree, i an condition	Root prune for sidewalk, Fence
5 11419 Dorrand	e 24" Live Oak	Private tree	Root prune for sidewalk & waterline, Fence
6 11419 Dorrand	e 29" Live Oak	Private tree, Not impacted	
7 11419 Dorrand	e 7" Crepe Myrtle	Private tree	Clearance prune
8 11415 Dorrand	, ,	Thin canopy, Private tree	Root prune for sidewalk & waterline, Fence
9 11415 Dorrand	e 22" Mulberry	Suppressed by Pine, Private tree, Fair	Root prune for sidewalk & waterline, Fence, Clearance prune
10 11411 Dorrand	e 26" Live Oak	Private tree	Root prune for sidewalk & waterline, Fence, Clearance prune
11 11407 Dorrand	e 18" Live Oak	Private tree	Root prune for sidewalk & waterline, Fence, Clearance prune
12 11407 Dorrand	e 16" Water Oak	Private tree	Root prune for sidewalk & waterline, Fence, Clearance prune
В			16' checkerplate, Bore waterline, Demo-form-pour walk without damage to
13 11403 Dorrand	e 33" Live Oak	20% dieback, Fair to Good condition	roots 1" or larger, Zero Curb Cutback, Fence, Clearance prune
			16' checkerplate, Bore waterline, Demo-form-pour walk without damage to
14 11323 Dorrand	e 35" Live Oak	Private tree	roots 1" or larger, Zero Curb Cutback, Fence, Clearance prune
15 11319 Dorrand	e 18" Magnolia	Suppressed by Live Oak, Private, Fair condition	Root prune for sidewalk & waterline, Fence
16 11315 Dorrand	e 6" Ligustrum	Topped to 4', Private, Not impacted	
17 11315 Dorrand	e 6" Ligustrum	Topped to 4', Private, Not impacted	
18 11410 Dorrano	e 2" Mimosa	Stump sprouts, Poor, Private, Not impacted	
19 11410 Dorrand	e 11" Bradford Pear	Private tree, Not impacted	
20 11406 Dorrand	e 6" Magnolia	Private tree	Fence, Clearance prune
21 11402 Dorrand	e 39" Arizona Ash	Trunk cavities, Poor, Private tree	Root prune for sidewalk, Fence, Clearance prune
22 11314 Dorrand	e 29" Live Oak	20% dieback, Fair to Good condition	Root prune for storm & sidewalk, Fence, Clearance prune
23 11310 Dorrand	e 12" Live Oak	Private tree	Root prune for sidewalk, Fence, Clearance prune
24 11306 Dorrand	e 9" Magnolia	Private tree, Not impacted	
25 11306 Dorrand	e 23" Arizona Ash	Private tree	Root prune for sidewalk, Fence
26 11302 Dorrand	e 35" Arizona Ash	Private tree	Root prune for sidewalk, Fence
			Root prune for storm & walk, Demo-form-pour walk without damage to tree
27 11302 Dorrand	e 15" Pine	Private tree	roots 1" diameter or larger, Fence, Clearance prune
			Root prune for storm & walk, Demo-form-pour walk without damage to tree
28 11302 Dorrand	e 19" Pine	Private tree	roots 1" diameter or larger, Fence, Clearance prune
			Root prune for storm & walk, Demo-form-pour walk without damage to tree
29 11302 Dorrand	e 18" Pine	Private tree	roots 1" diameter or larger, Fence, Clearance prune
A 30 11307 Dorrand	e 11" Mimosa	Mimosa Wilt, Poor, Private, Not impacted	
31 11303 Dorrand	e 1' Sago	Private tree, Not impacted	
32 11303 Dorrand	e 2" Live Oak	Private tree, Not impacted	
33 11303 Dorrand	e 1' Sago	Private tree, Not impacted	
			Bore waterline, Demo-form-pour walk without damage to roots 1" or larger,
34 11903 Bloomii	ngton 25" Water Oak	Private tree	Root prune for street, Fence, Clearance prune
			Bore waterline, Remove existing granite walk and place new granite walk
			without damage to roots 1" or larger, Zero Curb Cutback, Fence, Clearance
35 11903 Bloomii	ngton 34" Live Oak	Private tree	prune

Tree				
No.	Location	Description	Comments	Treatment
		_		Bore waterline, Remove existing granite walk and place new granite walk without
36	11903 Bloomington	17" Live Oak	30% dieback, Private tree	damage to roots 1" or larger, Zero Curb Cutback, Fence, Clearance prune
37	11819 Bloomington	7" Mimosa	Mimosa Wilt, Poor, Private	Clearance prune
38	11819 Bloomington	7" Mimosa	Mimosa Wilt, Poor, Private	Clearance prune
39	11819 Bloomington	10" Live Oak	Private tree	Fence, Clearance prune
40	11819 Bloomington	7" Vitex	Private tree	Clearance prune
41	11819 Bloomington	7" Vitex	Private tree	Clearance prune
42	11819 Bloomington	7" Vitex	Private tree	Clearance prune
43	11819 Bloomington	7" Vitex	Private tree	Clearance prune
44	11819 Bloomington	7" Vitex	Private tree	Clearance prune
45	11819 Bloomington	4" Crepe Myrtle	Private tree, Not impacted	
46	11819 Bloomington	4" Crepe Myrtle	Private tree, Not impacted	
47	11819 Bloomington	11" Live Oak	Private tree	Fence, Clearance prune
				Remove existing granite walk and place new granite walk without damage to roots
48	11903 Bloomington	15" Live Oak	Private tree	1" or larger, Bore waterline, Fence, Root prune for street, Clearance prune
				Remove existing granite walk and place new granite walk without damage to roots
49	11903 Bloomington	17" Live Oak	Private tree	1" or larger, Bore waterline, Fence, Root prune for street, Clearance prune
				Remove existing granite walk and place new granite walk without damage to roots
				1" or larger, Bore waterline, Fence, Root prune for street, Root prune for water
50	11903 Bloomington	17" Live Oak	Private tree	tap&lead, Clearance prune
				Remove existing granite walk and place new granite walk without damage to roots
51	11903 Bloomington	20" Live Oak	Private tree	1" or larger, Bore waterline, Fence, Root prune for street, Clearance prune
52	11903 Bloomington	13" Live Oak	Private tree	Bore waterline, Fence, Clearance prune

SPECIES AND SIZE/TYPE

→ ZERO CURB CUTBACK

SIDEWALK ON GRADE

CHECKER PLATE

C.N. Koehl

Urban Forestry, Inc.

210 Stone Bush Ct. • Katy, Texas 77493
281-391-0022 ckoehl@koehlurbanforestry.com

APPROVED: Crais N. Koell
11/15/2021

City of Meadows Place

Dorrance LaneReconstruction Project

Meadows T	
PLACE	

	MARK	DATE	DE:	SCRIPTION	
_					
	PROJECT	NUMBER		10292224	
	ORIGINAL	ISSUE			
_	550 1507			N 10 1 D E	
		MANAGER		Ngoc Kim Le, P.E.	
	PROJECT	DESIGNER			
	PROJECT	ARCHITECT			
	LANDSCA	PE ARCHITE	CT		
	CIVIL ENG	SINEER			

SHEET NAME

STRUCTURAL ENGINEER
MECHANICAL ENGINEER

ELECTRICAL ENGINEER
INTERIOR DESIGNER
EQUIPMENT PLANNER

WAYFINDING DRAWN BY

TREE PROTECTION PLAN
SHEET 1 OF 3

A SCALE

SHEET NUMBER

52 of

FILE NAME

TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Tree and plant protection

B. Minimum qualifications of Arborist.

1.02 MEASUREMENT AND PAYMENT A. Payment for tree removal shall be paid per each tree removed.

- B. Payment for Clearance pruning shall be paid for each tree pruned.
- C. Payment for Tree Protection Fence shall be paid on a per linear foot installed basis.
- D. Payment for Root Pruning Trench shall be paid on a per linear foot installed basis.
- E. Payment for Zero Curb Cutback will be on a per linear foot basis.
- F. Payment for Checker Plate will be on a square foot basis.
- G. Payment for Hand dig water service tap & lead or fittings shall be paid per each excavation pit required to be dug by hand.

1.03 PROJECT CONDITIONS

- A. Preserve and protect existing trees and plants to remain from foliage, branch, trunk, or root damage that could result from construction operations
- B. Prevent following types of damage:
 - Compaction of root zone by foot or vehicular traffic, or material storage.
 - Trunk damage from equipment operations, material storage, or from nailing or bolting.
 - Trunk and branch damage caused by ropes or guy wires.
 - Root or soil contamination from spilled solvents, gasoline, paint, lime slurry, and other noxious materials.
 - Branch damage due to improper pruning or trimming.
 - 6. Damage from lack of water due to:
 - a. Cutting or altering natural water migration patterns near root zones.
 - Failure to provide adequate watering.
 - 7. Damage from alteration of soil pH caused by depositing lime, concrete, plaster, or other base materials near root zones.

8. Cutting of roots larger than one inch in diameter where root pruning is not specified in Tree Protection Plan.

1.04 DAMAGE ASSESSMENT

A. When trees other than those designated for removal are destroyed or damaged as a result of construction operations, remove and replace with same size, species, and variety up to and including 8 inches in trunk diameter. Trees larger than 8 inches in diameter shall be replaced with an 8-inch diameter tree of the same species and variety and total contract amount will be reduced by an amount determined from the following formula: $0.7854 \times D^2 \times 125.00$ where D is diameter in inches of tree or shrub trunk measured 12 inches above grade for that portion of the tree which is greater than 8 inches in diameter. Removal must be approved by the City of Meadows Place prior to removal of any tree not scheduled for removal in the tree treatment schedule.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Pruning Paint: Black latex, water based paint, free of all petroleum products.
- B. Fertilizer/Root stimulant: Root stimulant shall be a root stimulant that contains at a minimum the following ingredients: Ectomycorrhizal Fungi, VA Mycorrhizal (VAM) Fungi, Rhizosphere Bacillus spp., Kelp Meal, Humic Acid, and Soluble Yucca. Fertilizer shall be Davey ArborGreen Pro.
- C. Tree Protection Fencing: Orange plastic fencing, 4 feet in height with 6 feet high "T" posts installed 10 feet on centers as per drawings. Fencing shall be attached to each post
- with a minimum of 3 wire ties or approved substitute. D. Plastic Root/Soil Protection: Clear polyethylene sheeting, minimum 6 mil. thickness.
- E. Sandy Loam Backfill: a loam consisting of less than 7 percent clay, less than 50 percent silt, and between 43 and 50 percent sand.
- F. Products of the same type from other sources shall not be excluded, provided they posses like physical, chemical and functional characteristics and are approved by City.

PART 3 - EXECUTION

- 3.01 PROTECTION OF EXISTING TREES AND SHRUBS A. Site preparation work and/or construction work shall not begin in any area where tree preservation measures have not been completed and approved by City of Meadows.
 - B. Protect exposed roots and root zone areas from contamination from stabilization materials and concrete using plastic root/soil protection (polyethylene).
 - C. Cover exposed roots within 4 hours to reduce damage caused by desiccation. Roots may be covered with soil, mulch, polyethylene, or wet burlap to help protect them from
 - D. Designate limited areas as concrete washout areas. Locate concrete washout areas away from root zones.
 - E. Install root pruning trenching where designated in tree treatment schedule and shown on the tree protection drawings. Trees scheduled for root pruning are called out specifically in the treatment schedule. Trench shall be located 2 ft. from the edge of proposed waterline or sanitary sewer for trees called out for root pruning for water or fittings, or sanitary sewer in the treatment schedule, 2 ft. from edge of proposed storm sewer pipe for trees called out for root pruning for storm in the treatment schedule, 30" back of proposed curb for trees called out for root pruning for street where zero curb cutback is not also called out, at back of proposed curb where zero curb cutback is called out in same location as root pruning, and at edge of sidewalk for trees called out for root pruning for sidewalk. Trench locations shown on tree preservation plan are drawn to scale and shall be located in field as drawn on plan. Exact locations shall be approved in the field by the engineer and/or City prior to installation. Trenching depth shall be a minimum of 2 ft. deep and a maximum of 6 inches wide for water, fittings, sanitary sewer, storm, and street. Trenching depth shall be to the anticipated bottom of sidewalk and base material for sidewalk root pruning; roots lower than sidewalk shall not be pruned. All roots in pruning trenches shall be cut by trencher, chainsaw, or handsaw to the specified depth. Roots shall be cut cleanly, and not ripped, torn, or chopped. Trench shall be backfilled and compacted immediately after trenching. Trench shall be installed prior to any clearing and grubbing, excavation for underground, or any other site work.
 - F. Install tree protection fencing around each tree to be preserved as indicated in the tree treatment schedule and on the tree protection plan.
 - 1. Each tree to be preserved shall be protected with a tree protection fence. The fencing shall be continuous between posts, shall be pulled taut prior to securing to posts, and shall be firmly attached to the posts with a minimum of 3 wire ties.
 - 2. All tree protection fencing shall be installed prior to site work or construction activity. The fence shall be placed in a continuous alignment as shown on the tree protection plan. Fences shown on tree protection plan are drawn to scale and shall be installed as drawn, in the field. In general fences shall be placed 30" back of existing curb or edge of pavement where root pruning or zero curb cutback is not specified, 6" back of root pruning trench where root pruning is specified, and 12" back of curb where zero curb cutback is specified. Exact locations shall be approved by the City and/or engineer in the field. The Fences shall be placed to protect roots, trunks, and foliage. The contractor shall not remove or relocate tree protection fencing and shall not operate within the limits shown without direct approval of the City. No bore pits, peep holes, service taps, or any excavation should occur in the area of the tree protection fencing for trees called out with "bore" in the Tree Treatment Schedule. The "bore" limits shall be the same as the limits of the tree protection fencing.
 - Storage of equipment or materials will not be allowed inside a fence. Entryways and access into a protected area shall not be provided unless approved by the City.
 - Damage to tree fences occurring during the progress of the work shall be repaired immediately at no additional cost to owner. Workmen shall be clearly instructed to exercise caution in performance of work near trees being preserved.
 - Tree protection fencing shall be removed by contractor, at no additional costs, upon completion of all construction activity in each work zone area. Tree protection fencing materials used in the first two work zone areas shall be removed and utilized in subsequent work zone areas. Materials and labor shall be paid for each linear foot of fencing installed in first two work areas. All fencing installed in subsequent work zone areas shall be paid for labor only.
 - G. Boring/Auguring of water lines or sanitary sewer lines
 - Water line or sanitary sewer line shall be bored/augured/horizontally drilled under critical root zone areas of trees designated with auger or bore in the tree treatment schedule. The entire area protected with tree protection fencing shall be bored. No bore pits, come through holes, peep holes, push pits, or long or short side service taps shall be allowed in the areas protected by tree protection fencing. The tree protection plan takes into consideration the limits of auguring equipment, there should be room for adequately spaced bore pits, peep holes, come through holes, and push pits. Any changes to the location of the tree protection fencing shall be authorized by the City and/or Engineer.
 - H. Hand digging of Service taps and leads, fire hydrants and fittings
 - 1. Trees called out for Hand dig short side service tap are located in very close proximity to existing short side water meters. Excavating the service tap with machinery would significantly impact the tree. These short side service taps shall be excavated with manual labor to expose any roots 1" in diameter and larger. The first 24" of excavation shall be completed manually to expose the roots. Any root 1" in diameter and larger shall remain undamaged, the roots shall not be cut, nor shall the bark and cambium layer be scraped or damaged. Once the roots are exposed, if there is adequate room to utilize a mini-excavator without damaging the roots, the mini-excavator can be utilized to complete the excavation down to the water line. 1" plywood shall be placed on grade to provide root protection in the area of access of the mini-excavator. If roots 1" diameter or larger are cut or damaged, responsible party will be subject to a citation under the Tree Ordinance, and may also be required to incur the cost of tree removal and replacement of damaged tree on an inch for inch basis, if required by City.
 - 2. Trees called out for Hand dig short side or long side service lead are located in very close proximity to existing water meters. Excavating the service lead with machinery would significantly impact the tree. Short side leads shall be excavated with manual labor to expose any roots 1" in diameter and larger from the service tap to the meter. Come out holes and excavation required for long side service leads shall be excavated with manual labor to expose roots 1" in diameter and larger, from the come out hole to the meter. In each case, all roots 1" in diameter and larger shall remain undamaged, the roots shall not be cut, nor shall the bark and cambium layer be scraped or damaged. If roots 1" diameter or larger are cut or damaged, responsible party will be subject to a citation under the Tree Ordinance, and may also be required to incur the cost of tree removal and replacement of damaged tree on an inch by inch basis, if required by City.

- Trees called out for Hand dig fire hydrant, tee, or fitting are located in very close proximity to proposed fitting. Excavating the fitting with machinery would significantly impact the tree and be in violation of the Tree Ordinance. Excavation for fire hydrant or fitting shall be completed with manual labor to expose any roots 1" in diameter and larger. In each case, all roots 1" in diameter and larger shall remain undamaged, the roots shall not be cut, nor shall the bark and cambium layer be scraped or damaged. If roots 1" diameter or larger are cut or damaged, responsible party will be subject to a citation under the Tree Ordinance, and may also be required to incur the cost of tree removal and replacement of damaged tree on an inch by inch basis, if required by City.
- 4. Long side service taps shall not be located in an area specified to be bored in the tree treatment schedule. Should it be necessary to locate a long side service tap in an area specified to be bored, the excavation shall be completed as specified in paragraph 1 of this section-Hand digging short side service taps.
- All water meters and sanitary service leads called out on P&P drawings and visible in the field have been addressed in the Tree Protection Plan. Should any additional meters or leads be found during construction, or any new meters or leads installed beneath the canopy of any tree, or in the areas fenced for tree protection, the excavation shall be completed as specified in paragraph 1 and/or 2 of this section and paid for at the unit costs for each included in the contract.

I. Pruning of Trees

- 1. Trees shall be pruned in accordance with the American National Standard for tree pruning, ANSI A300 (Part 1) 2001 Pruning Revision of ANSI A300-1995 Tree, Shrub and Other Woody Plant Maintenance - Standard Practices. Pruning shall be completed by professional arborists who has received training in proper pruning techniques.
- Clearance prune designated trees in tree protection plan for public streets, sidewalks, and construction areas. Provide 14 feet of vertical clearance over proposed water lines, sanitary, storm and proposed street construction, from back of curb on one side to back of curb on the other side. Pruning to be installed prior to any construction activity. Contractor shall notify property owner prior to trimming or pruning any trees with trunks located on private property. Exceptions will be made for trees determined to be arboriculturally significant by City. Pruning of the trees identified will be completed with approval and supervision of City.
- All cuts should be made sufficiently close to the parent limb or trunk without cutting into the branch collar or leaving a protruding stub, so that closure can readily start
- under normal conditions. All lateral cuts shall be made back to a lateral that is at least 1/3 the diameter of the parent limb. Clean cuts shall be made at all times. Trees shall be pruned in a manner that will not destroy or alter the natural shape and character of the tree.
- Apply black latex paint to all fresh wounds on Oak (Quercus) species immediately after each cut is made.
- 6. Pruning of trees designated in the tree protection plan shall include removal of dead, diseased, and/or broken limbs larger than 1" in diameter. J. Tree Removal
- 1. Trees scheduled for removal shall be sawed down and debris hauled from the site the same day. The stump shall be ground to 6" below grade and excess grindings shall be hauled from the site the same day, so that a pile of grindings is not left where the stump was ground. Enough grindings should be left so that an open hole does not remain.
- Only those trees called out for removal in the Tree Treatment Schedule shall be removed, or otherwise damaged. Should it be determined that any additional trees must be removed, written approval must be obtained from the City prior to removal.

K. Root Stimulation

- Deep root stimulate designated trees. Mix fertilizer with wetting agent per label instructions.
- Stimulate entire root zone area within the dripline of the tree and continue 10 feet beyond the dripline, leaving out areas of anticipated root loss (construction areas) and sidewalks and street pavement.
- Mixture shall be injected into the top 10 inches of soil under pressure of 150 to 200 psi as soil conditions warrant.
- Mix in a tank with agitation capability per label instructions. Inject the mixture on a 2.5 ft. square grid at 4 lbs. actual nitrogen per 1,000 sq. ft.
- L. Regularly water trees which have received root damage, to eliminate additional stress caused by lack of moisture. Water during periods without adequate rainfall. For example, should 1.0" of rain not be received within a week period, the trees should be thoroughly watered. March through September, water once every two weeks. October through February, water every three weeks. Water thoroughly to saturate the entire root zone area.
- M. Chemically treat tree trunks with evidence of borer activity with the appropriate approved insecticide mixed and applied per the manufacturer's product application recommendations. Trees shall be sprayed within 24 hours after observance of borer activity.
- N. Grading and filling around trees.
 - Maintain existing grade within the dripline of trees, unless otherwise indicated.
 - Where existing grade around trees is above new finish grade, under supervision of project arborist and City, carefully hand excavate within the dripline to make transition to
 - Where existing grade is below new finish grade, place sandy loam soil in a single layer to make the transition to new grade. Do not compact; hand grade to required elevation. Specifically, to areas where proposed curb is higher than existing and backfill will be required and in areas where proposed curb is moving farther away from base of tree.
 - O. Demolition, Forming and Pouring Sidewalks (Sidewalk on Grade)
 - Demolition of existing sidewalks, located in or adjacent to the limits of tree protection fencing, shall be completed without disturbing, cutting, or otherwise damaging tree roots and soil located beneath them.
 - The new sidewalk shall be formed at or above the elevation of the existing sidewalk, without disturbing, cutting or otherwise damaging tree roots. Every effort has been made to address tree root and sidewalk elevation issues with information available in the field and on plan and profile sheets. The elevation of every tree root was not available, if tree roots are found to be in conflict with proposed sidewalk, project engineer, arborist and City shall be consulted as to how to install sidewalks with minimal impacts to adjacent trees.
 - P. Zero curb cutback & Demolition of existing curbs
 - 1. Disturbance of tree roots or soil behind the existing and/or proposed curb within root zones of trees designated for "zero curb cutback" or "do not disturb soil & roots back of curb" shall be prohibited. If the curb cannot be removed without disturbing soil or damaging roots back of curb when using equipment for demolition, the curb shall be broken using a hand-held jackhammer and removed by hand.
 - The exposed roots and soil shall be covered immediately after demolition with 6 mil polyethylene in order to avoid desiccation, and contamination by the lime used for roadbed stabilization. The polyethylene shall be placed so that it covers the vertical face of soil back of curb and laid back onto the grade 12 inches back of curb. The polyethylene should remain in place, across the entire area specified for zero curb cutback or do not disturb soil & roots, from the time the existing curb is demolished until the time when the new curb is formed and backfilled. The polyethylene can be pulled up from the vertical face while the road bed is being graded or mixed, to avoid catching the plastic with machinery, but shall be replaced immediately after equipment has completed. The vertical face shall not be exposed for more than 8 hours in any 24-hour period.
 - There shall be no stabilization back of curb in the zero curb cutback areas, or forming with steel forms. The existing grade and roots back of existing curb shall not be disturbed. This may require forming of the new street with wooden forms with stakes inside forms, which may require leaving the forms in place after the street is poured. Should wooden forms be utilized, the wood shall be at minimum a 2x6. The new curb may require hand finishing, as a slip curb machine may not have adequate clearance without disturbing the roots that are to be protected with the zero curb cutback.
 - 4. Roots extending into the street, or on top of the existing curb, in areas to be paved shall be cut and removed by hand prior to disturbance or removal with equipment. Roots shall be pruned flush with the proposed back of curb. Roots one inch in diameter and larger shall be cut in a manner to provide a smooth, clean cut surface. Cuts shall be made with the appropriate pruning shears or pruning saws. Roots shall not be chopped or broken.
 - 5. In areas where proposed curb may be lower than existing top of curb and tree roots 2" diameter or larger are present, the soil and roots shall not be graded or laid back. The existing elevation shall be maintained and the curb formed to meet elevation or a short elevation difference between roots and top of curb maintained.
 - Q. Demolition, Forming and Pouring of Drive Way Approaches
 - Demolition of existing driveway approaches located beneath the dripline of any tree shall be completed without disturbing, cutting, or otherwise damaging tree roots and soil
 - 2. The new approach shall be formed at or above the elevation of the existing approach where tree roots 2" diameter or larger are present, without disturbing, cutting or otherwise damaging tree roots. Maximum drive slopes may be needed at bottom of apron to allow forming of drive over tree roots at top of drive. As with sidewalks, the elevation of every tree root was not available in design. If tree roots are found to be in conflict with proposed approach, project engineer, arborist and City shall be consulted as to how to install drive way with minimal impacts to adjacent trees.
 - R. Arborist Qualifications
 - 1. Arborist Employ qualified arborist acceptable to City to complete all tree pruning and root stimulation treatments. Arborist shall be normally engaged in the field and have a minimum of 5 years' experience. Qualifications of the selected arborist shall be submitted for review and approval by the project engineer and City.



City of Meadows Place

APPROVED: Crais N. Koell 11/15/2021

PROJECT FOR

Dorrance Lane Reconstruction Project

Icadows PLACE	Your Place for <i>Life</i> .

DESCRIPTION

		PROJECT NUMBER	10292224
		ORIGINAL ISSUE	
	_		
		PROJECT MANAGER	Ngoc Kim Le, P.E.
		PROJECT DESIGNER	
		PROJECT ARCHITECT	
		LANDSCAPE ARCHITECT	
		CIVIL ENGINEER	
		STRUCTURAL ENGINEER	
	В	MECHANICAL ENGINEER	
		ELECTRICAL ENGINEER	
		INTERIOR DESIGNER	
		EQUIPMENT PLANNER	
		WAYFINDING	
		DRAWN BY	N.B.

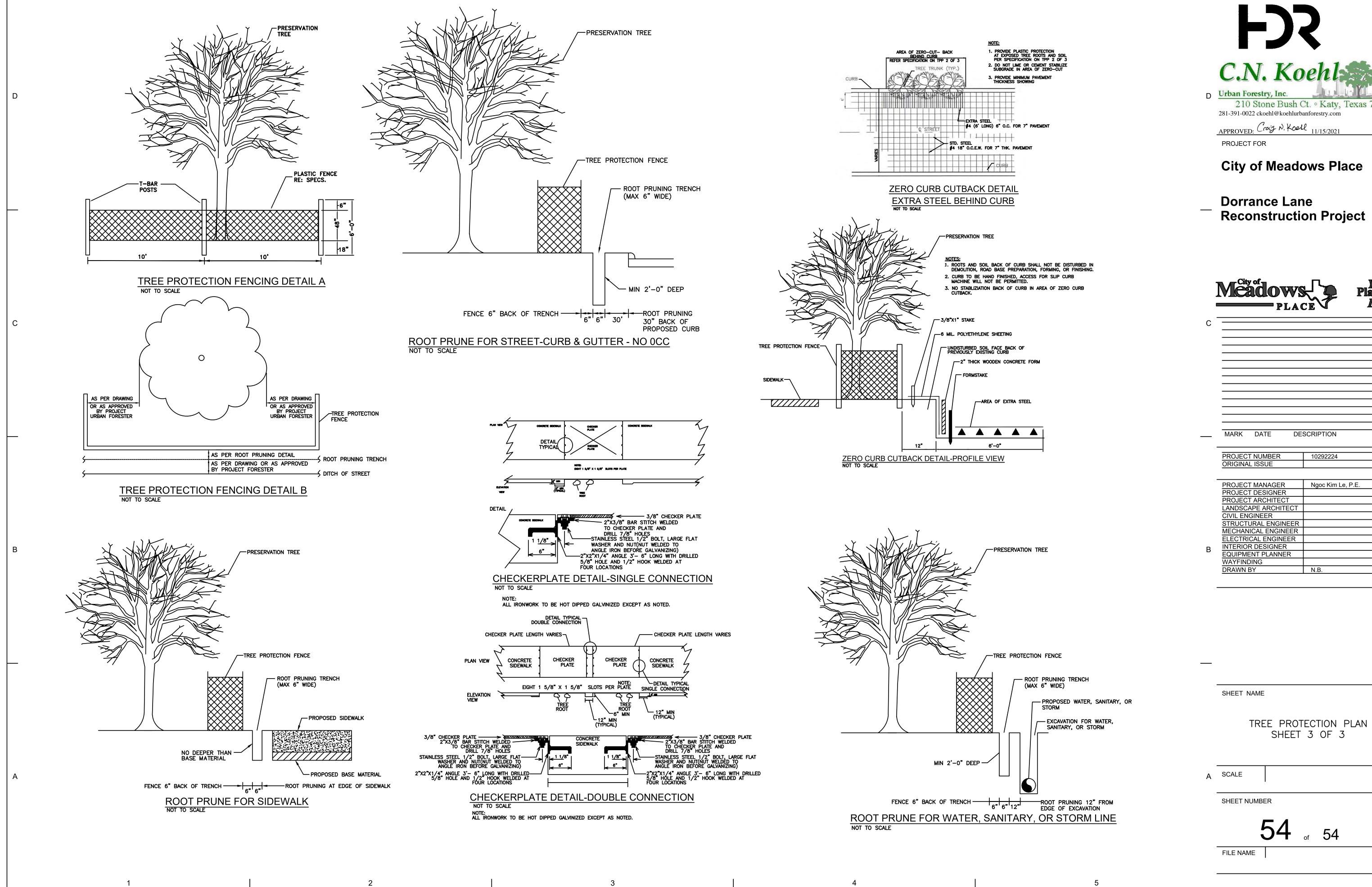
SHEET NAME

TREE PROTECTION PLAN SHEET 2 OF 3

SHEET NUMBER

SCALE

FILE NAME



C.N. Koehl 210 Stone Bush Ct. . Katy, Texas 77493