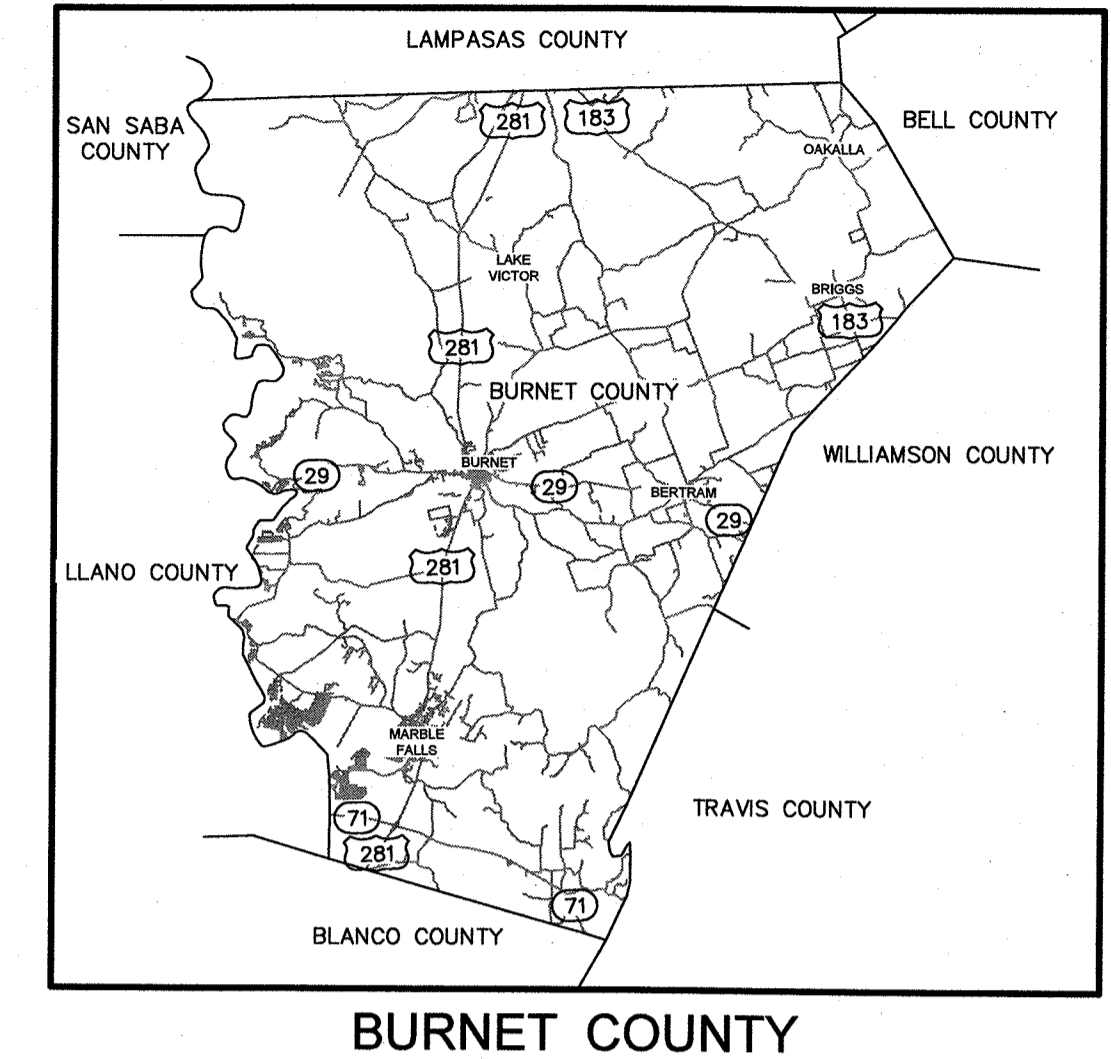


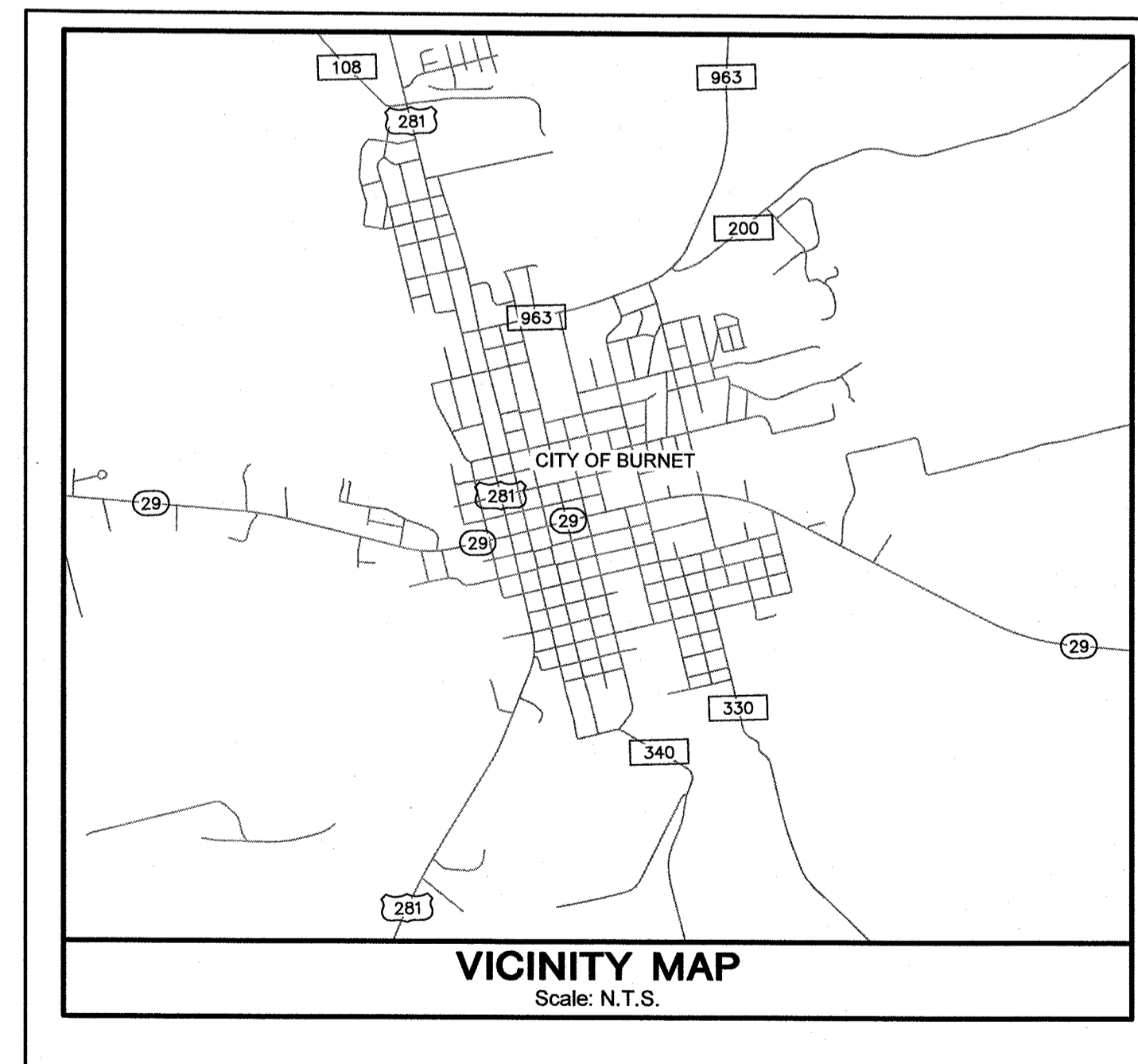
CONSTRUCTION OF SANITARY SEWER REHABILITATION IN BURNET COUNTY, TEXAS FOR CITY OF BURNET



CITY OF BURNET - SANITARY SEWER REHABILITATION

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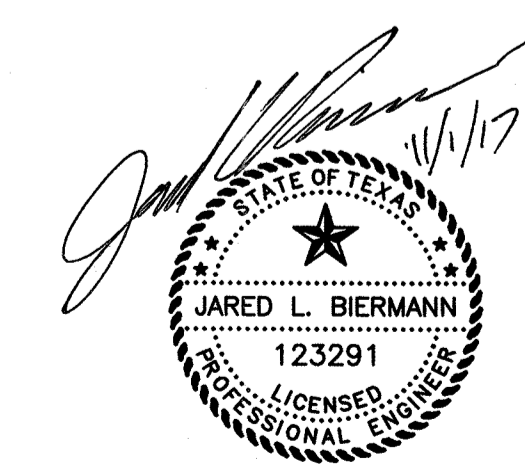


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DAVID VAUGHN - CITY MANAGER
KELLY DIX - CITY SECRETARY

COUNCIL MEMBERS
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JOYCE LAUDENSCHLAGER
DANNY LESTER
TRES CLINTON
PAUL FARMER
CINDIA TALAMANTEZ

ALAN BURDELL - WATER/WASTEWATER SUPERINTENDENT



JONES & CARTER, INC. PROJECT NUMBER 0A737-0004-00
 NOVEMBER 2017



JONES & CARTER
 Texas Board of Professional Engineers Registration No. F-439
 6415 Reading Road • Rosenberg, Texas 77471 • 281.342.2033

GENERAL CONSTRUCTION NOTES:

- Upon completion of all construction projects, the Contractor shall restore existing facilities (i.e. property) to equal or better than original site conditions prior to construction.
- The Contractor shall furnish all materials, equipment and labor for excavation, installation and backfilling of water, sanitary sewer and/or sewer mains and related appurtenances as shown on the plans and/or described in the specifications.
- The loading, unloading and handling of all pipe, valves, hydrants, fittings, manholes and other accessories shall be in accordance with the manufacturer's recommended practices and shall at all times be performed with care to avoid any damage to the material. The Contractor shall locate and provide the necessary storage areas for materials and equipment.
- The Contractor shall be responsible for safeguarding and protecting all material and equipment stored on the job site. The Contractor shall be responsible for the storage of materials in a safe and workmanlike manner to prevent injuries, during and after working hours, until project completion.
- The Contractor shall provide sheeting, shoring and bracing necessary to protect workers and existing utilities during all phases of construction, as may be required by O.S.H.A., federal, state and local laws, codes and ordinances.
- All testing procedures used on this project shall conform to the City of Burnet standards. The testing expenses shall be borne by the Contractor. Should any test results not meet the testing standards, it shall be the Contractor's responsibility to remove or replace such materials and installations so that the testing standards are met. Additional testing to certify compliance with testing standards shall be at the Contractor's sole expense.
- The approximate location of existing utilities are given for reference only. Before commencing the work on this contract, the Contractor shall verify by field investigation the actual locations of all utility facilities within and adjacent to the limits of the work that may be affected by the project work. The Contractor shall be responsible prior to excavation to determine if conflicts exist. The Contractor shall notify the Water/Wastewater Superintendent at once of any conflict prior to commencing any construction. Conflicts which result due to negligence by the Contractor, or which the Contractor has been given notice or has knowledge, shall be the sole responsibility of the Contractor. The cost of remedial work, removal of portions of the work or extensive design changes occasioned by the failure of the Contractor to verify the location of existing utilities as described above shall be borne by the Contractor.
- The Contractor shall be fully responsible for any and all damage to existing public or private utility lines, including but not limited to paving, water lines, wastewater collection systems, storm sewer and traffic signals during construction. All damages shall be repaired in accordance with current editions of City of Burnet standard construction specifications, design details and design manuals. Repairs shall be at no cost to the City of Burnet.
- The Contractor shall not unload any track-type construction machinery on any existing pavement or cross over any existing pavement or curb during the project.
- The Contractor shall provide the City and the Engineer detailed "Record Drawings," in reproducible form, upon completion of a project prior to final payment.
- Pay all fees associated with permits in advance before "final" approval will be given to commence work. There will be no fees for City permits.
- All "Utilities" construction observation and inspection will be done by Public Utilities Inspector(s) or agent(s).
- The Contractor shall give notification to the Public Works Department and the Public Works Director for inspection of work in a timely manner. No completed work will be covered without approval. Contractor shall notify the following forty-eight (48) hours prior to beginning construction:
A. City of Burnet - Utilities Department - (512) 756-2402
B. Jones & Carter, Inc. - (281) 342-2033.
All construction shall be constructed in conformance with the requirements of the City of Burnet and the project specifications.
- All work performed shall comply with current national specifications and standard practices, approved project plans and specifications and all applicable city standards, codes and ordinances.
- Contractor shall notify all utility companies in the area at least 72 hours prior to commencing work in any right-of-way or existing easement. A verification number from the one-call utility coordinating committee is required.
(Dig TESS) 1 (800)346-8377 Lone Star Notification Center 1 (800)669-8344
City of Burnet (512) 756-6093
- WARNING: Overhead Electrical Facilities**
Overhead power lines may exist within the project area. Lines are not marked since they are clearly visible, but Contractor shall locate them prior to beginning any construction. Texas law, Section 752, Health and Safety Code, forbids all activities in which persons or things may come within six (6) feet of live overhead high voltage lines. Contractors and Owners are legally responsible for safety of construction workers under this law. This law carries both criminal and civil liability. To arrange for lines to be turned off or moved, contact the local electric company. Excavations within three feet (3') of existing power poles shall not be allowed. Pipe locations that will require excavation closer than the minimum shall be bored and jacked, with the written approval of the Owner.
- Contractor shall furnish, place, and maintain adequate standard warning signs and/or barricades with accompanying lights. Blinking lights shall be kept on from sunset to sunrise. Flagmen shall be placed and maintained during working hours at such points and for such periods required to provide for the safety and convenience of the public travel and Contractor's personnel. The flagmen shall be courteous, well-informed, and physically and mentally able to perform their duties. All work shall be in accordance with applicable TxDOT permits.
- Construction barricades, signage, detour plan and pavement markings in the project area shall meet the requirements of the "Texas Manual of Uniform Traffic Control Devices for Streets and Highways". All materials shall conform to Texas Department of Transportation specifications where applicable. All Street or Alley Closures shall be approved by the City.
- The Contractor shall hold harmless the City and all its representatives from all suits, actions, or claims, of any character, brought on account of any injuries or damages sustained by any person or property in consequence of any neglect in safeguarding the work or through the use of unacceptable material in the construction of the improvements, or on account of any act of omission by the said Contractor. The Contractor shall not be released from said responsibility until the project shall have been completed and accepted, and so much of the money due the Contractor under and by virtue of his contract may be retained by the City or his surety may be held until such claims have been settled and suitable evidence to that effect furnished to the City.
- Unless specifically authorized by the Owner, Contractor shall confine all work efforts within the designated area. Contractor shall exercise extreme care near adjacent property to protect any existing trees, structures, fences, landscaping, and other existing features. Contractor shall be responsible for adequately protecting existing structures, utilities, trees, shrubs, sprinkler systems, and other adjoining facilities and property, and repair and replace due to damage caused by Contractor at Contractor's sole expense. Restoration shall be as good as or better than prior to starting work.
- These plans, prepared by Jones & Carter, Inc., do not extend to or include the designs or systems pertaining to the safety of the Contractor or its employees, agents, or representatives in the performance of the work. The seal of the registered professional Engineer hereon does not extend to any such systems that may now or hereafter be incorporated in these plans. The Contractor shall prepare or obtain appropriate safety systems, including the plans and specifications required by House Bill 1569, as currently amended, enacted by the Texas legislature and current O.S.H.A. standards for trench safety.
- Prior to bidding the project, the Contractor shall inspect the site and satisfy himself that conditions of the site of this project are acceptable for construction.
- Extra bank sand as directed by Engineer shall be from an approved source. Use sand that is free from clay lumps, organic or other deleterious material, and having a plasticity index of four (4) or less.
- Except as provided for in bid items, removal and restoration of all surfaces shall be incidental. No Separate Pay. Include cost for such in bid item for which this is a component thereof.
- Except as noted on the plans, existing sanitary sewer pipe is vitrified clay pipe. If televising reveals concrete pipe or other materials, all work associated with pipe will be considered the same as vitrified clay pipe. No cost adjustment allowed to the unit price bid as a result of any portions of the project including existing pipe of material other than vitrified clay.
- During construction, additional existing sanitary sewer manholes may be found. Contractor shall notify Engineer immediately to receive determination as to removing and/or replacing such manholes, and deleting any proposed manholes as directed by the Engineer.
- Contractor shall test all new sanitary sewer lines, if possible. However, as services are reconnected, testing may not be possible. At a minimum, all new lines shall have a mandrel test performed. All manholes shall be tested in accordance with specifications.

SANITARY SEWER REHABILITATION:

- Bypass pumping may be required during construction and must be pre-approved by the Engineer and the City of Burnet and shall be scheduled 48 hours in advance. In the event of an emergency, all damages due to sewage backups or overflow are the responsibility of the Contractor; the cost is incidental to the contract. Bypass pumps shall be installed and operated by the contractor to pump down the gravity collection system at least once per day. Vehicular access to all driveways must be maintained at all times. Contractor to coordinate pumping with City operator.
- Contractor to take before and after photographs and videos of all landscape and fence repair and provide to the Engineer within 7 days of repair. There will be no separate payment for work performed under this item. Include cost of such work in contract unit bid prices.
- Contractor shall use care when making the opening in existing manholes. Openings shall not be more than three inches (3") nor less than one inch (1") larger in diameter than the proposed pipe. Pipe shall not protrude more than four inches (4") past the inside face of the manhole wall. Fill void around pipe with non-shrink waterproof grout. Backfill manhole with cement sand.
- All waste material, grit, or cleaning debris generated as a result of the excavation and repair of the wastewater collection system become the property of the Contractor and shall be hauled offsite and disposed of in a legal manner.
- All external sanitary sewer service reconnections shall include new pipe which shall extend, at a minimum, to the limits of the alley, easement, or right-of-way.
- A cleanout is to be placed on all service lines at the edge of the alley, easement, or right-of-way.

PROTECTION REQUIREMENTS AT WATER LINE-SANITARY SEWER CROSSINGS:

- Place one full section of joint water line centered at sanitary sewer. Not applicable for existing water.
- If no evidence of sanitary sewer leakage. Place one full section of water line centered over sanitary sewer; if there is evidence of leakage use Note 4 below.
- One foot minimum clearance.
- Auger 9 feet minimum each side of sanitary sewer. Place one full section of water line, centered under sanitary sewer. Fill augured hole with bentonite/clay mixture if sewer line is leaking, sewer line shall be replaced with 150 psi lined ductile iron or PVC pipe with appropriate adapters on all portions of the sanitary sewer within 9 feet of the water line. Provide restrained joints for both water and sanitary sewer lines at each end of proposed pipe section. Water line must pass a pressure and leakage test as specified in City's Standard Specifications. Sewer line shall infiltration, ex-filtration low pressure air test or leakage test as specified in TCEQ Chapter 317-2 Design Criteria for Sewer Systems.
- Place minimum one full section of sanitary sewer, 150 psi lined ductile iron or PVC pipe centered at the water line and provide restrained joints for both water and sanitary sewer lines at each end of proposed pipe section. Use cement-stabilized sand backfill for all portions of the sanitary sewer within 9 feet of the water line, as measured perpendicularly from any point on the water line to the sanitary sewer (minimum 2.5 sacks cement per cubic yard of sand). The cement stabilized sand bedding shall start at a point 6 inches below the bottom of sanitary sewer to 8 inches above the top of sanitary sewer and one quarter of the pipe diameter or 6 inches, whichever is greater, on the side of the sanitary sewer.
- Not allowed.

PRIMARY CONDITION	PROPOSED WATER - EXISTING SANITARY				OR PROPOSED WATER - PROPOSED SANITARY EXISTING WATER - PROPOSED SANITARY			
	WATER OVER SANITARY		WATER UNDER SANITARY		WATER OVER SANITARY		WATER UNDER SANITARY	
IF THE CLEARANCE IS	LESS THAN 2 FEET	GREATER THAN OR EQUAL TO 2 FEET BUT LESS THAN 9 FT.	LESS THAN 2 FEET	GREATER THAN OR EQUAL TO 2 FEET BUT LESS THAN 9 FT.	LESS THAN 2 FEET	GREATER THAN OR EQUAL TO 2 FEET BUT LESS THAN 9 FT.	LESS THAN 2 FEET	GREATER THAN OR EQUAL TO 2 FEET BUT LESS THAN 9 FT.
PROTECTION REQUIREMENT	1,2,3	2	6	4	1,3,5	2	1,3,5	5

NOTE: PROTECTION REQUIREMENTS FOR SANITARY SEWER CROSSINGS (UNLESS VARIANCE IS GRANTED BY THE TCEQ) ARE (ALL CLEARANCES SHALL BE MEASURED FROM OUTSIDE WALL TO OUTSIDE WALL).

SANITARY SEWER CONSTRUCTION NOTES:

- All proposed 8-inch to 12-inch gravity sanitary sewer lines will be ductile iron or SDR 26 PVC pipe, unless otherwise noted on plans. 15-inch gravity lines will be SDR-26 PVC, ASTM D-3034, and 18-inch to 27-inch gravity lines will be SDR-26 PVC, ASTM, F-679, unless otherwise noted on plans, non-pressure PVC may not be substituted for DIP or C-900 PVC, (DR 18 only).
- All types of sanitary sewer pipe shall be cement sand bedded and backfilled as noted by City of Burnet specifications and details for dry stable trench (no separate pay), unless otherwise directed.
- Maintain 12-inch minimum clearance between all sanitary sewers, storm sewers and culverts unless otherwise noted.
- Sewer trenches under or within one (1) foot of proposed or future pavement to be backfilled with cement-sand backfill as specified, to within one (1) foot of subgrade. Include cost of backfill in unit price bid per linear foot of pipe.
- All sewer lines shall be air-tested in accordance with the contract specifications.
- For all PVC pipe, use manhole water stop gasket and clamp assembly at manhole connections (no separate pay).
- Sanitary sewer manholes shall be precast concrete, standard City of Burnet, unless otherwise noted. All sanitary manholes within the 100-year flood plain (designated) shall have the top set at least twelve (12) inches above the base flood elevation or sealed and vented. The finish rim elevation shall be met with pre-cast rings.
- All service leads shall be four (4) inch at 1.00% minimum slope or six (6) inches or eight (8) inches at 0.70% minimum slope and shall be PVC, DR 26, 160 psi pressure pipe conforming to ASTM D-2241. Match size to existing service line size.
- After surfacing and grading is completed, rims are to be adjusted to three (3) to six (6) inches above final grade and back-dressed with dirt to provide drainage away from the manhole unless in street or alley where rims shall be adjusted to match final grade of surfacing.
- If wet sand is encountered in the field, use special bedding per City of Burnet specifications and details, and as directed by the Engineer.
- Handle, cut, and join pipe as per manufacturer's recommendations.
- All work shall comply with applicable local, state, and federal regulations.
- Provide trench safety as required and in accordance with applicable state and federal regulations.
- Waterline/Sanitary manhole and sanitary sewer separation: All sanitary sewer facilities and potable waterlines must be installed so as to provide a minimum of nine feet of horizontal clearance between them. Where the nine-foot separation distance cannot be achieved see plans for special notes, follow Engineer's directives, or follow these special procedures:
The plans do not show the location of sanitary sewer service lines. Contractor shall identify location of service lines with television work for all lines to be pipeburst. Contractor shall identify location of service lines during construction of new sanitary sewer lines. All sanitary sewer services to be reconnected to main lines as per specifications and plan.
- All sanitary sewer services shall be connected to new gravity line or pipe burst line. Replace service line from connection point to right-of-way line. Install new cleanout within two (2) feet of right-of-way line or as directed by Engineer.
- Additional sanitary sewer service line beyond right-of-way shall be approved by Engineer or City of Burnet and shall be paid by linear foot (all sizes) as per applicable bid item.

PAVING CONSTRUCTION NOTES:

- Pavement shall be in accordance with the regulations of all applicable TxDOT and City of Burnet standards.
- All returns shall have a 25-foot radius at face of curb unless otherwise noted.
- Guidelines set forth in the "Manual on Uniform Traffic Control Devices" shall be observed.
- All fill in existing or proposed City of Burnet right-of-way, including back dressing behind the curb, shall be placed in maximum loose lifts of eight inches (8") or less and compacted to 95% of maximum density at -3% to +5% moisture content as determined by AASHTO test method T-99.
- Refer to the latest City of Burnet pavement marking details and City of Burnet subdivision standard paving details unless otherwise noted.
- Pavement replacement shall include a minimum of eight (8) inches of compacted base and two inches (2") of HMAC, unless otherwise noted.
- For payment of remove and replace pavement, maximum width of payment replacement for trenches shall be five (5) feet, unless otherwise noted.
- Gravel replacement shall include a minimum of six (6) inches of compacted crushed limestone base.
- Unless noted and included in Bid Proposal and as shown on the plans, all removed or replacement of pavement shall be incidental. No Separate Pay. Include cost for such in bid item for which this is a component thereof.
- Contractor to follow traffic control details approved by TxDOT for all work within U.S. Highway 281 ROW and State Highway 29 ROW.
- No Separate Pay for construction of end pavement repair of pipebursting insertion or access pipe, or for removed reconnections. Sawcut edges for removal of pavement. Contractor to protect edges, and if damaged, Contractor shall re-cut edge before repairs are made. Backfill with Cement Stabilized Sand to within ten (10) inches of surface. Place eight (8) inches of HMAC, compacted in two (2) inch lifts. Finish surface with two (2) inches of HMAC, compacted and leveled with existing surface.

NO.	DATE	REVISIONS	APP.

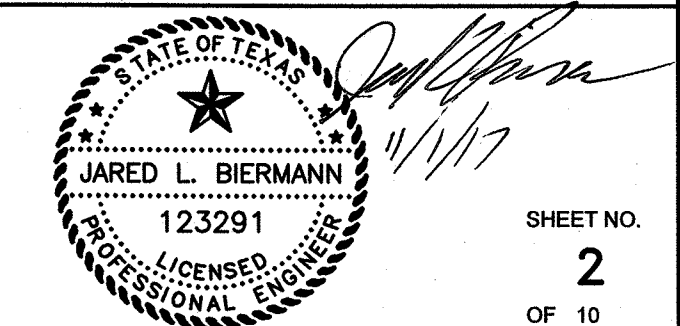
CITY OF BURNET
BURNET COUNTY, TEXAS

SANITARY SEWER REHABILITATION

GENERAL CONSTRUCTION NOTES

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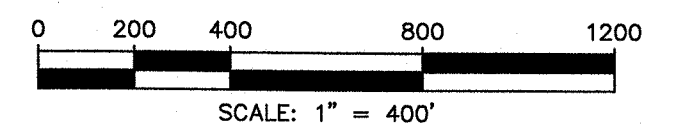
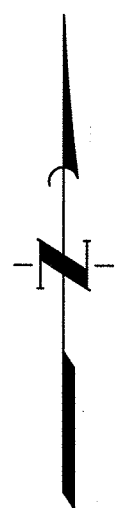
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JOB NO.: 0A737-0004-00 DWG. NO.:
SUBMITTED: SURV. BY:
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AREA OF SEWER REHABILITATION



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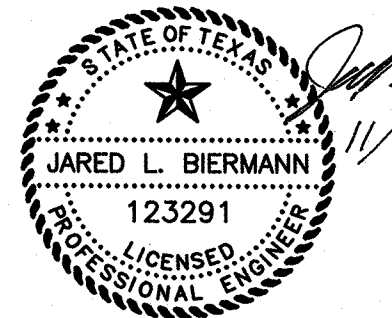
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BURNET COUNTY, TEXAS

SANITARY SEWER REHABILITATION

PROJECT OVERALL

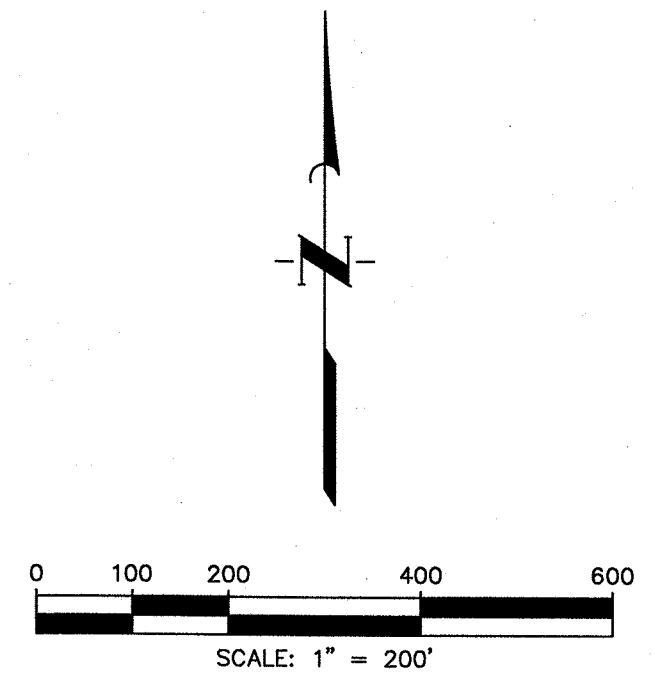
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Jared L. Biermann
11/17

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OF 10



NO.	DATE	REVISIONS	APP.

CITY OF BURNET
BURNET COUNTY, TEXAS

SANITARY SEWER REHABILITATION

NORTHWEST
SITE LOCATIONS

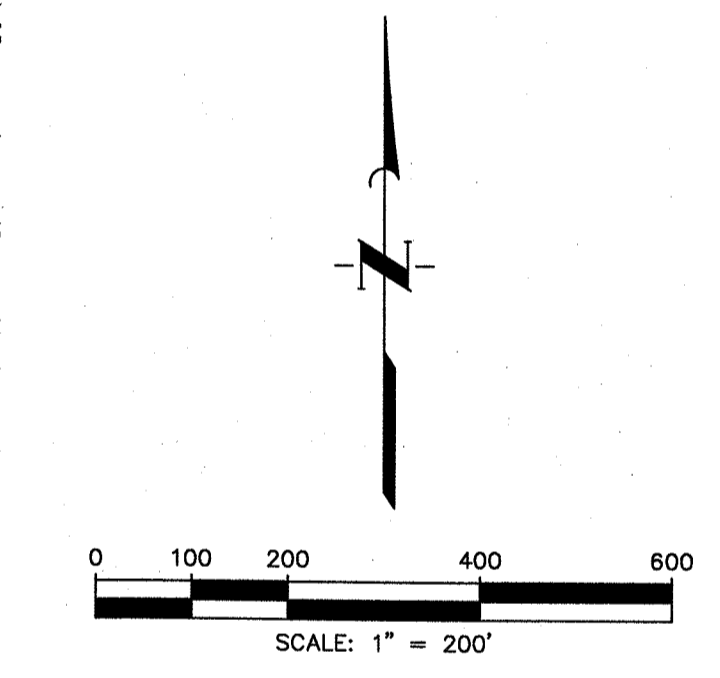
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Texas Board of Professional Engineers Registration No. F-439
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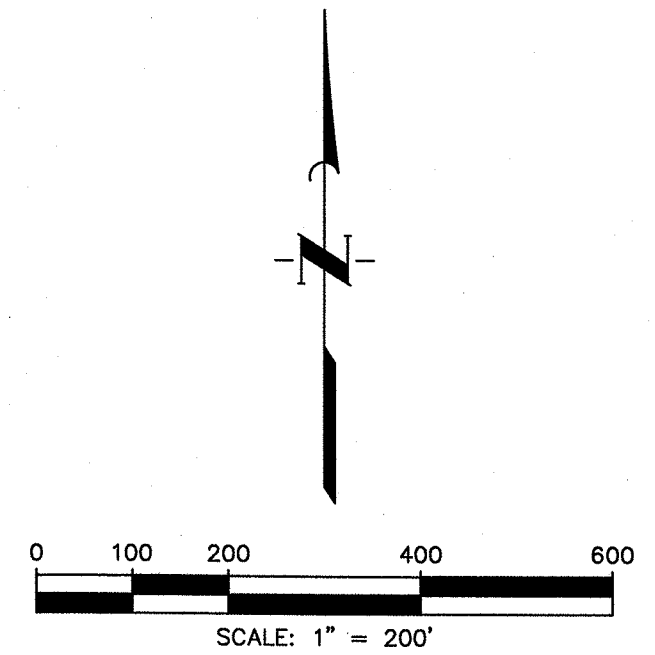
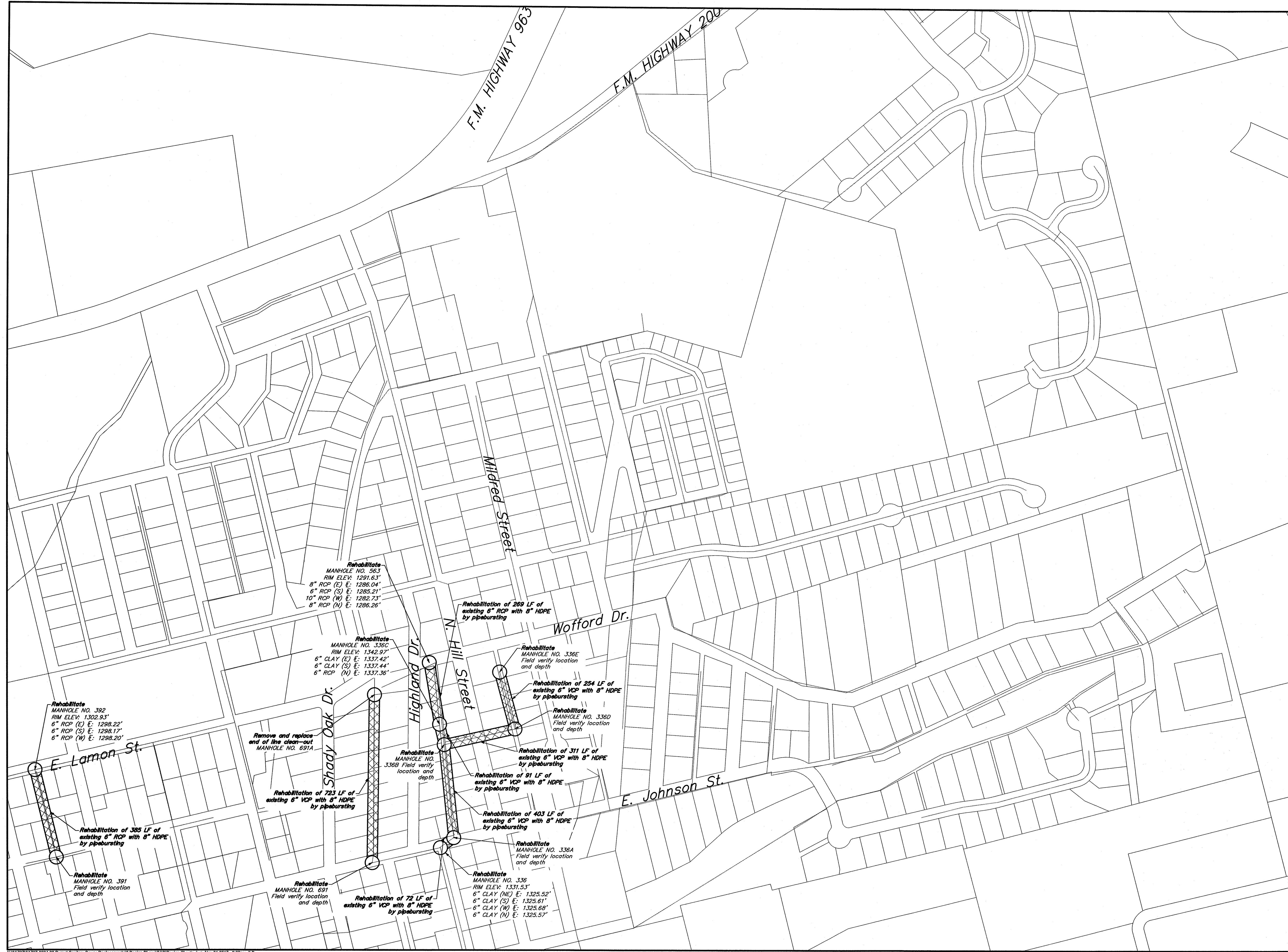
JARED L. BIERMANN
123291
LICENSED PROFESSIONAL ENGINEER

JLB
11/1/17

SHEET NO.
4
OF 10



NO.	DATE	REVISIONS	APP.
CITY OF BURNET BURNET COUNTY, TEXAS			
SANITARY SEWER REHABILITATION			
SOUTHWEST SITE LOCATIONS			
JONES CARTER Texas Board of Professional Engineers Registration No. F-439 6415 Reading Road - Rosenberg, Texas 77471 - 281.342.2033			
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JOB NO. 0A737-0004-00		DWG. NO.	
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SHEET NO. 5 OF 10			



NO.	DATE	REVISIONS	APP.

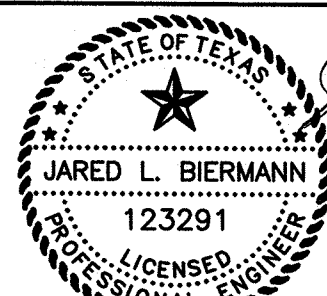
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BURNET COUNTY, TEXAS

SANITARY SEWER REHABILITATION

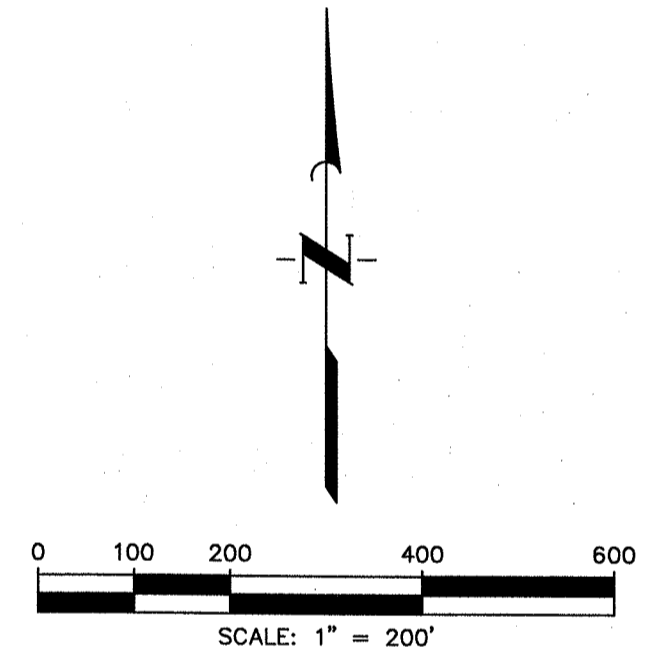
NORTHEAST
SITE LOCATIONS

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 *Jared L. Biermann*
JARED L. BIERMANN
123291
LICENSED PROFESSIONAL ENGINEER

SHEET NO.
6
OF 10



NO.	DATE	REVISIONS	APP.

CITY OF BURNET
BURNET COUNTY, TEXAS

SANITARY SEWER REHABILITATION

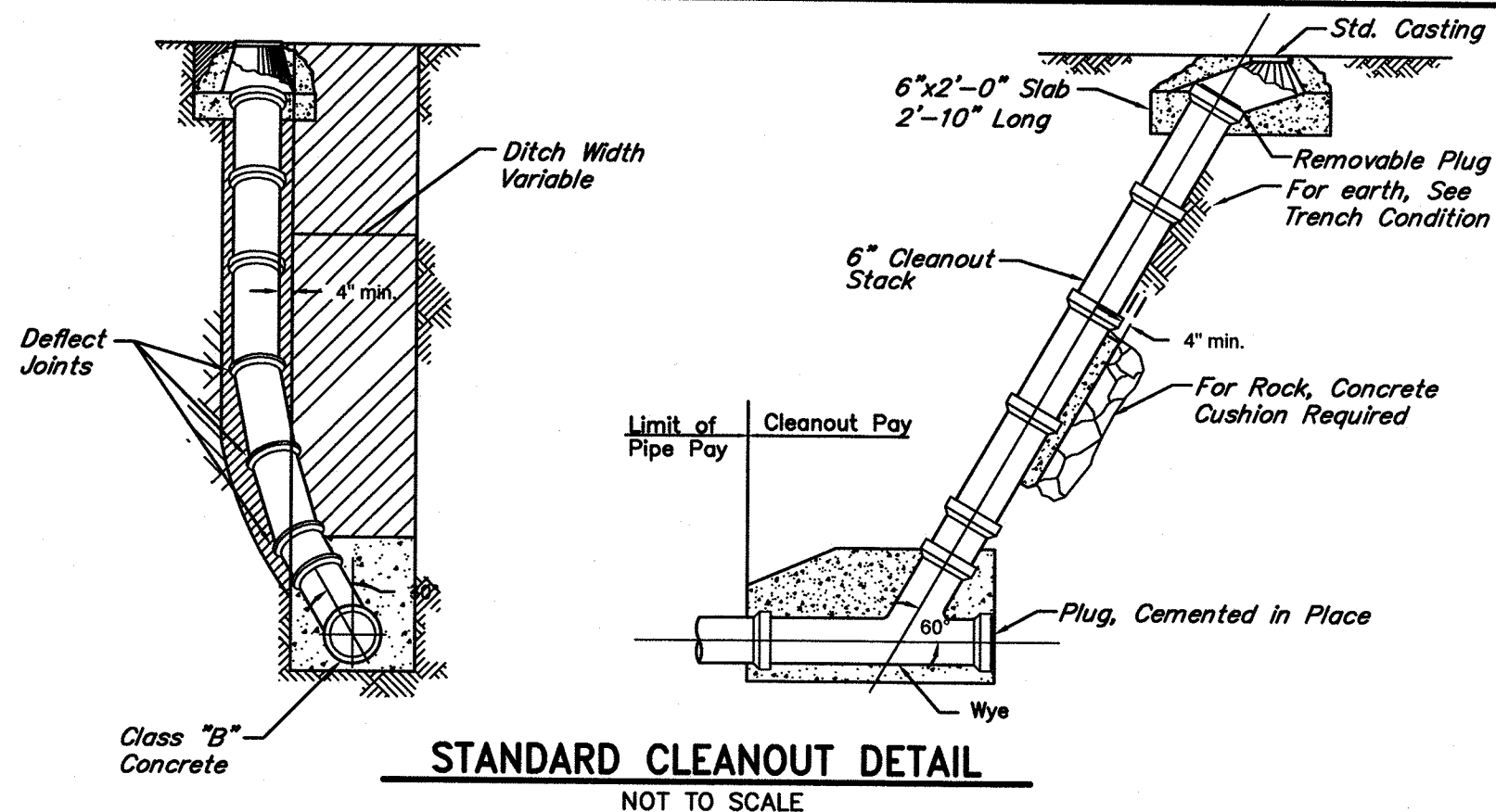
SOUTHEAST
SITE LOCATIONS

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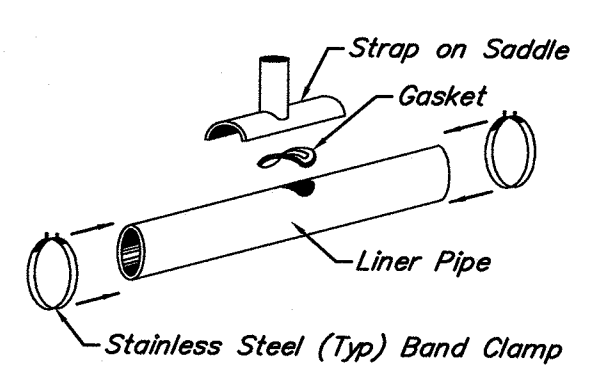
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123291
LICENSED PROFESSIONAL ENGINEER

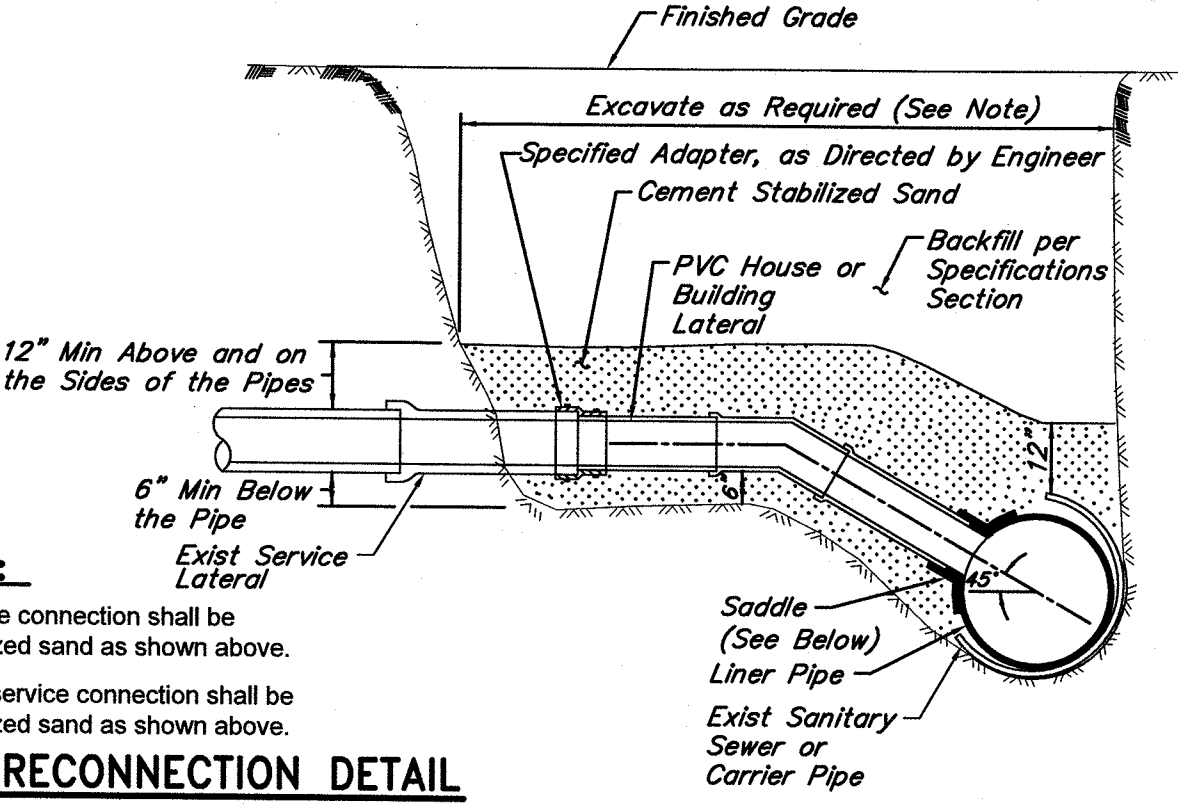
SHEET NO.
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STANDARD CLEANOUT DETAIL
NOT TO SCALE

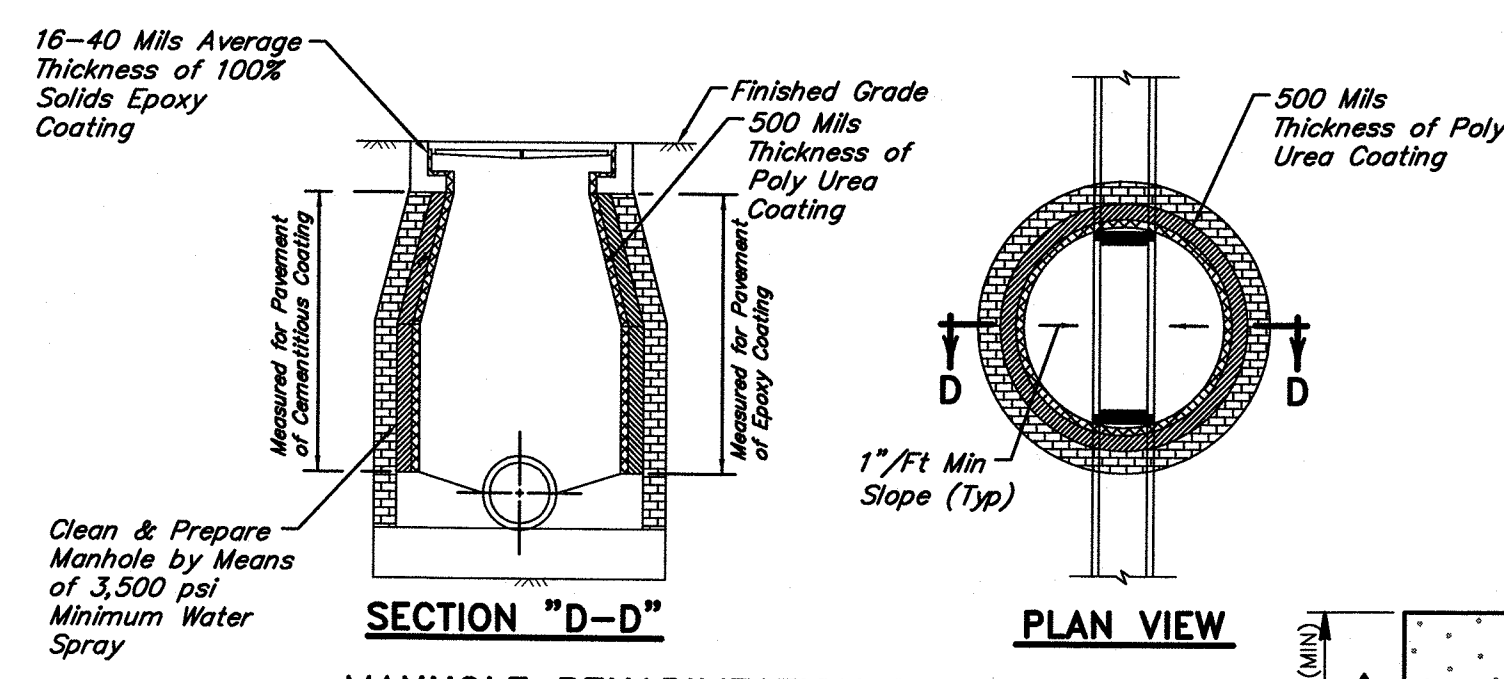


LATERAL STRAP-ON SADDLE



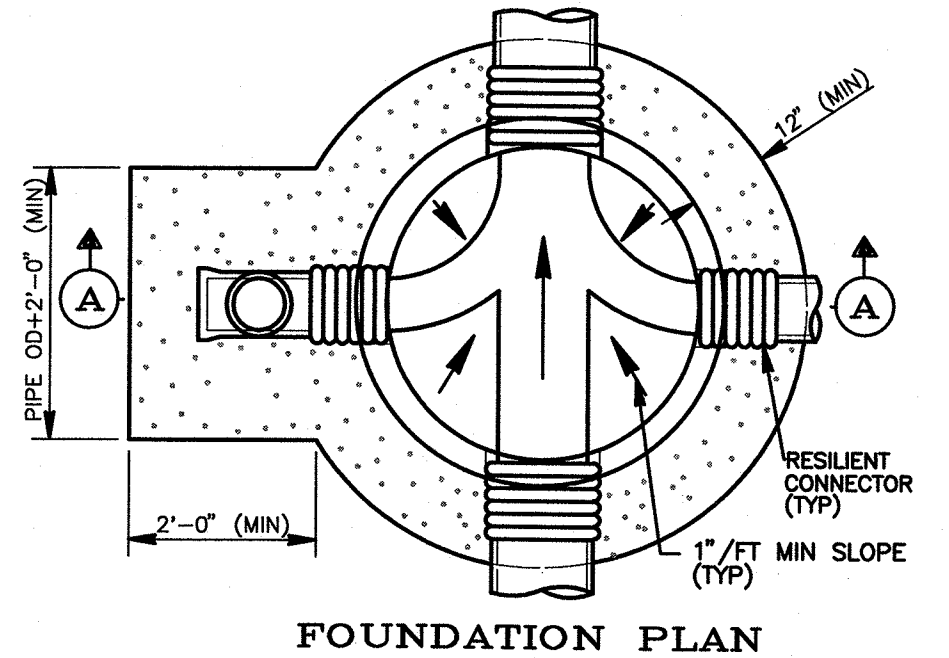
SANITARY SEWER SERVICE RECONNECTION DETAIL
NOT TO SCALE

- NOTES:**
- The entire exposed service connection shall be encased in cement stabilized sand as shown above.
 - Excavate entire exposed service connection shall be encased in cement stabilized sand as shown above.



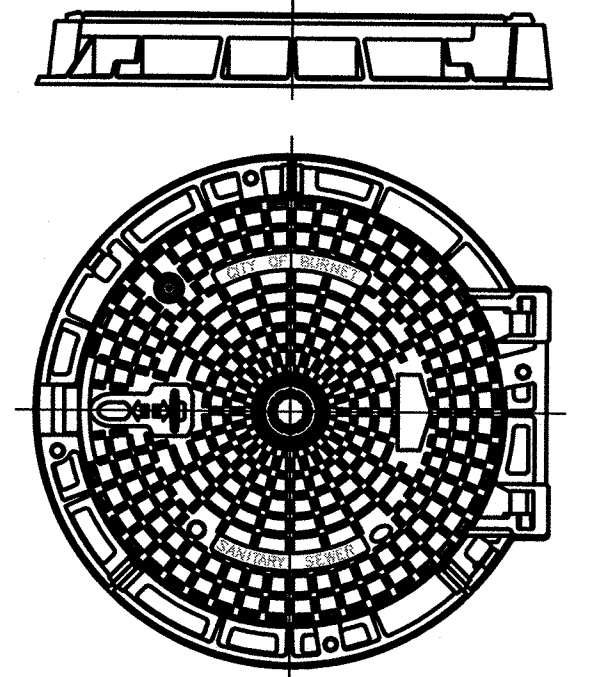
SECTION "D-D"
MANHOLE REHABILITATION DETAIL
NOT TO SCALE

- NOTE:**
- Unless otherwise directed by Engineer use existing manhole cover and frame.
 - Add inflow preventer if manhole top is less than 6" above finished grade.
 - Use PAMREX cover to replace damaged or broken cover or frame.



FOUNDATION PLAN

- NOTES:**
- DEPTH OF MANHOLE DETERMINES SECTIONS REQUIRED.
 - PRECAST CONCRETE RINGS SHALL BE PROVIDED FOR A COMBINED ADJUSTMENT HEIGHT OF AT LEAST 12". THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 1'-6".
 - MANHOLE WALL THICKNESS FOR DEPTH EXCEEDING 12'-0" SHALL BE DETERMINED TO MEET LOADING CONDITIONS. MIN THICKNESS 5".
 - MANHOLE DROP AND INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWING.
 - SEAT MANHOLE FRAME IN SEALANT.
 - ECCENTRIC PRECAST CONCRETE MANHOLE MAY BE USED.
 - OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
 - MIN. REINFORCING IN THE PRECAST CONCRETE BASE SHALL BE # 5 @ 8 EW.
 - PROVIDE BACKFILL TO MATCH ADJACENT PIPE TRENCH BACKFILL.
 - INSIDE OF ALL MANHOLES SHALL BE COATED WITH EPOXY LINER APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION (40 MIL MINIMUM THICKNESS). APPROVED EPOXY LINER IS IPAGARD CHEMICAL RESISTANT COATING, THANECOAT FE-100, OR FOSROC W.B.S.
 - GROUT JOINTS AND SEAL WITH COATING.
 - RUBBER GASKET JOINTS ARE TO BE USED ON ALL PRECAST MANHOLE APPLICATIONS.



MANHOLE COVER & FRAME
NOT TO SCALE

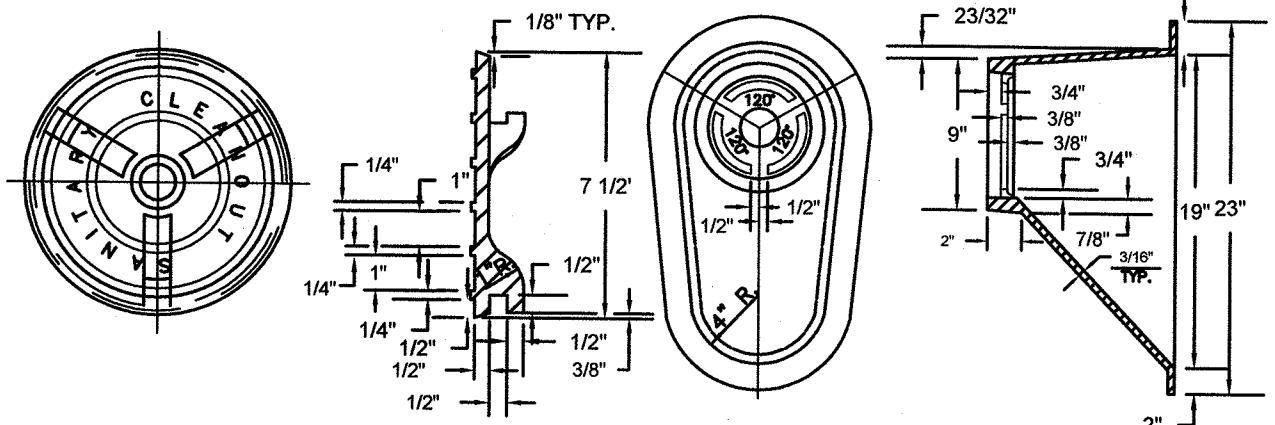
Manhole cover and frame shall be PAMREX 32", East Jordan Iron Works 30" Ergo or approved equal dual hinge cover. Cover and frame shall be manufactured from Ductile Iron.

Covers shall be stamped "SANITARY SEWER" and "CITY OF BURNET"

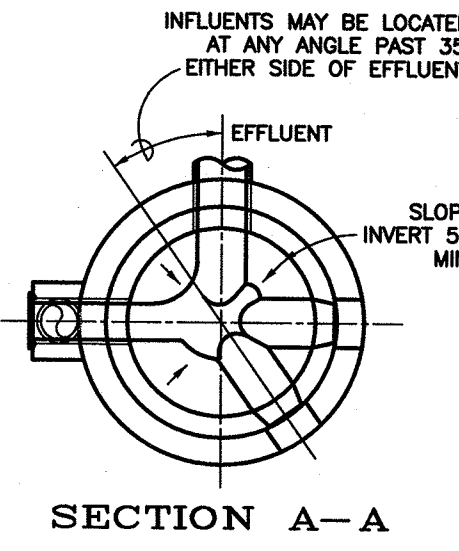
Covers shall be fully hinged and incorporate a 90 degree blocking system to prevent accidental closure. Covers shall be one man operable using standard tools.

Frames shall be circular, incorporate a seating ring and a fitted plug in each hinge housing, and be available in a 30 inch minimum clear opening. The frame depth shall not exceed 5 inches, and the flange shall incorporate bedding slots, bolt holes, and lifting eyes.

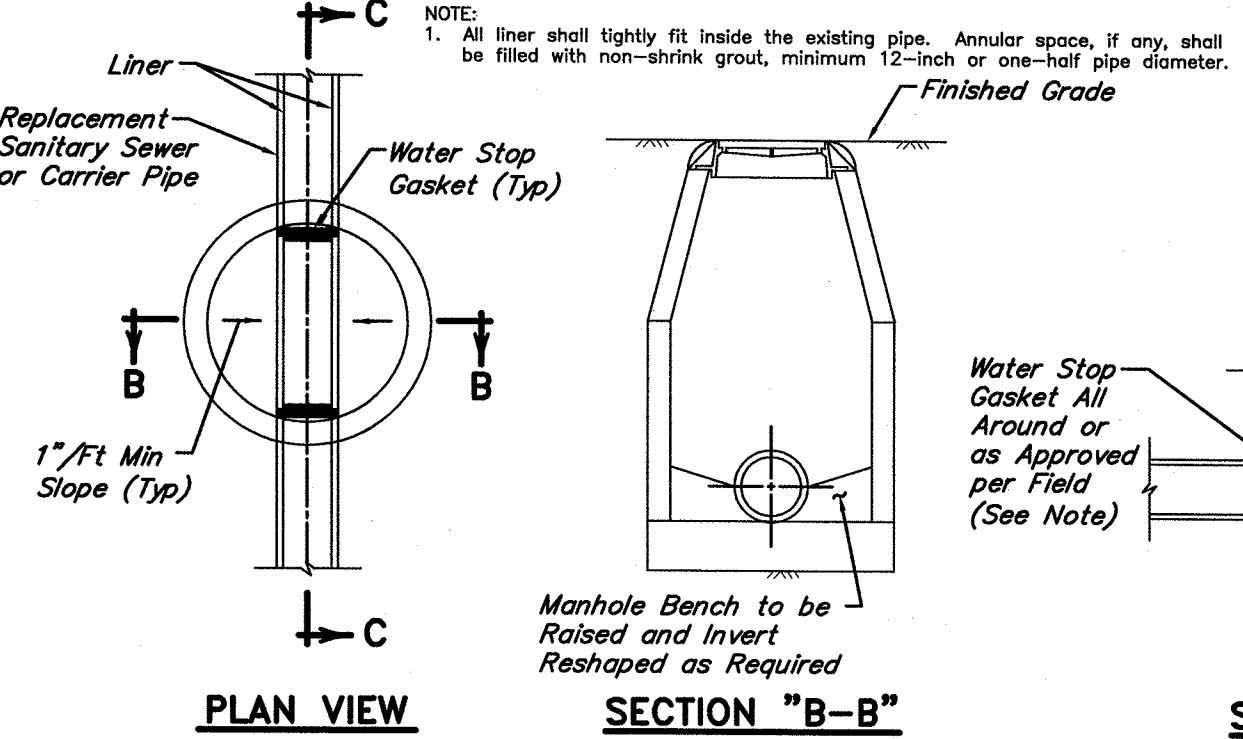
All components shall be black coated.



STANDARD CAST IRON CLEANOUT CASTING
NOT TO SCALE

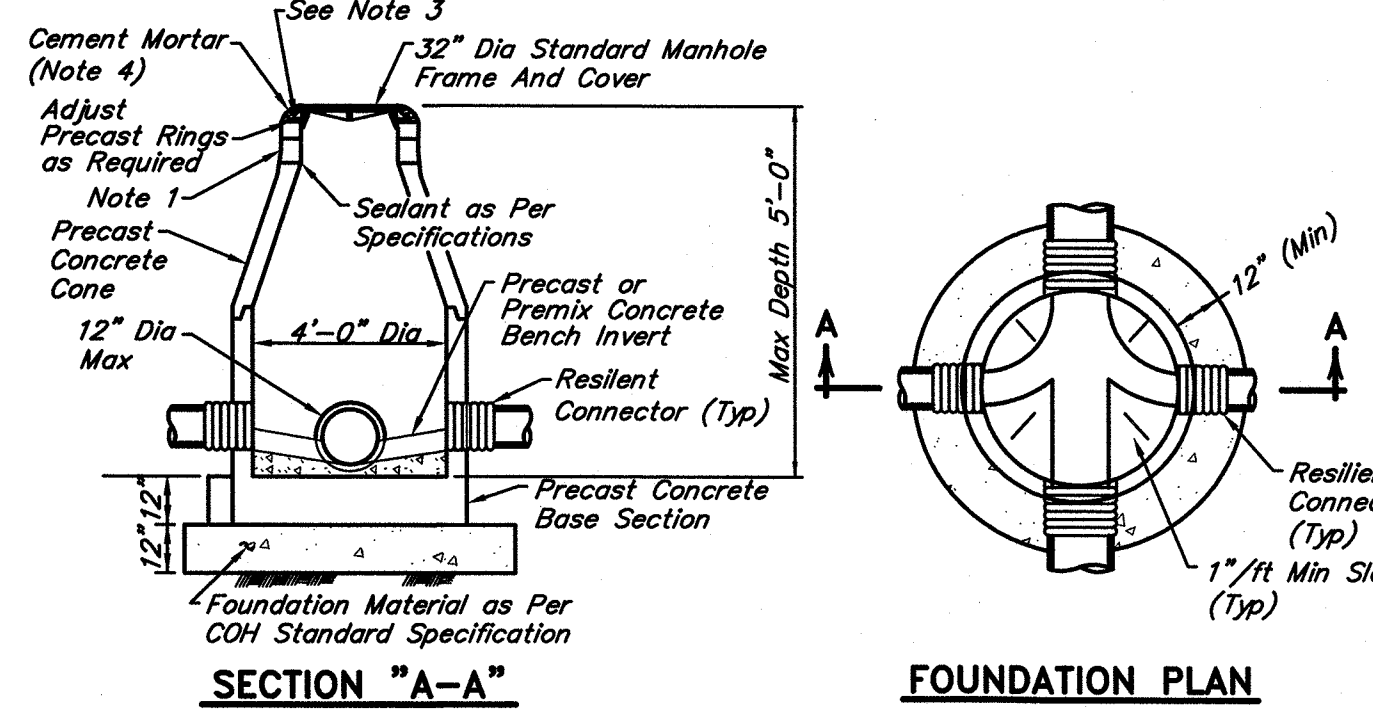


SECTION A-A

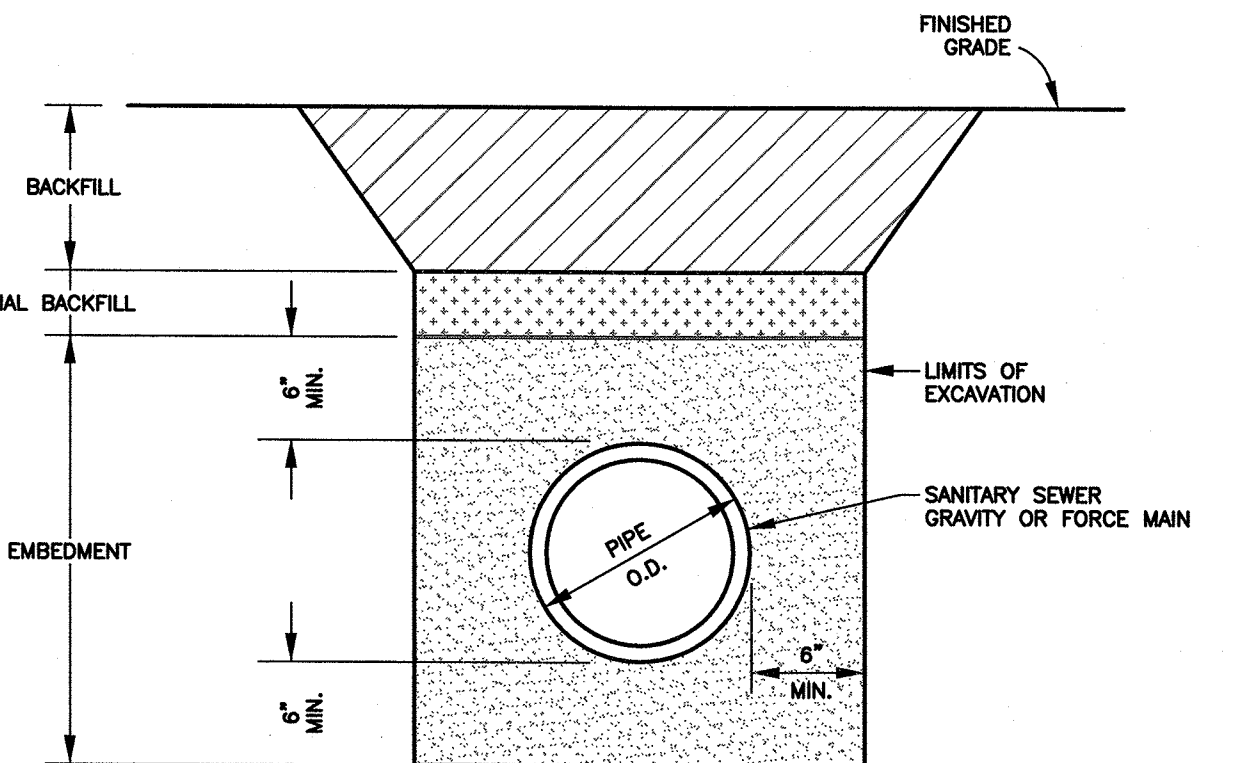


SEALING OF REPLACEMENT PIPE AT MANHOLE DETAIL
NOT TO SCALE

- NOTES:**
- A minimum of 4" adjustment ring shall be provided. The total height of the adjustment rings shall not exceed 12".
 - Manhole intersecting pipes shall be installed only when called for in plan and profile drawing.
 - Seat manhole frame in sealant per City of Burnet standard specification.
 - OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
 - Minimum reinforcing in the base be # 5 @ 8 EW.
 - Provide backfill material as per City of Burnet standard specification.



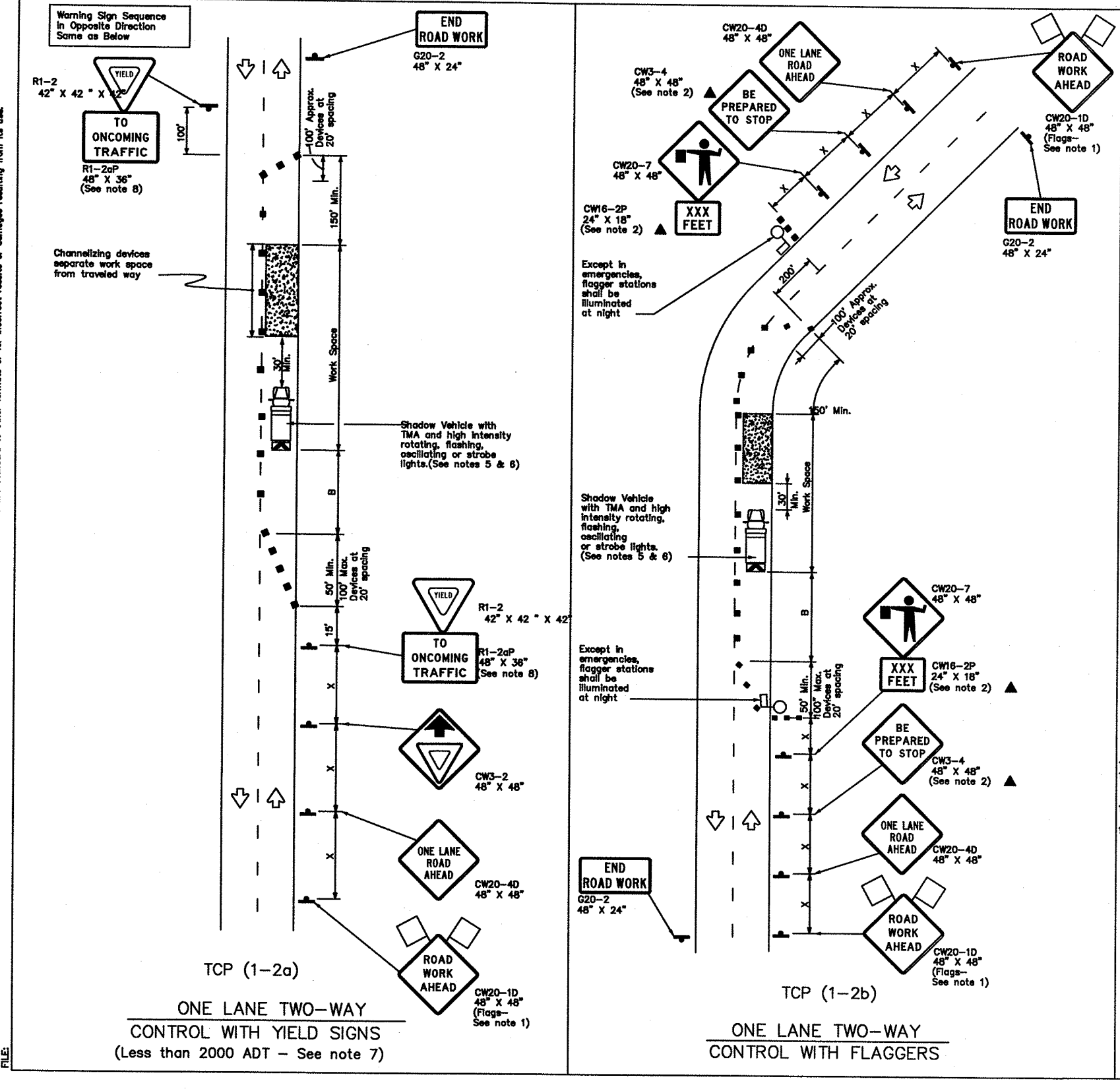
SANITARY SEWER SHALLOW MANHOLE
NOT TO SCALE



SANITARY SEWER BEDDING & BACKFILL
NOT TO SCALE

- NOTES:**
- BACKFILL SHALL BE NATIVE SOIL, FREE OF DEBRIS, COMPACTED TO 95% STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED UNDER PAVEMENT.
 - INITIAL BACKFILL SHALL BE UNIFORMLY GRADED MATERIAL (MAXIMUM SIZE 3" DIAMETER), PLACE IN 6" LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED UNDER PAVEMENT.
 - EMBEDMENT SHALL BE CEMENT STABILIZED SAND (1.5 SACKS PER CUBIC YARD) COMPACTED TO 95% STANDARD PROCTOR DENSITY.
 - UNDER PAVING OR WITHIN 3' OF PAVEMENT, THE INITIAL BACKFILL AND ALL BACKFILL UP TO THE PAVEMENT SURFACE SHALL BE CEMENT STABILIZED SAND (1.5 SACKS PER CUBIC YARD) COMPACTED TO 95% STANDARD PROCTOR DENSITY.
 - TRENCH SHORING IN ACCORDANCE WITH OSHA, SHALL BE INSTALLED WHERE REQUIRED.
 - SOIL IN THE PIPE ZONE SHALL CONSIST OF NON-WATERBEARING, COHESIVE SOILS WITH A SHEAR STRENGTH OF 1000 PSI OR GREATER. WHEN WET SAND EXISTS IN THE PIPE ZONE, MODIFIED BEDDING SHALL BE INSTALLED.
 - THIS APPLICATION IS FOR BOTH GRAVITY SEWER AND/OR FORCE MAIN CONSTRUCTION.

NO.	DATE	REVISIONS	APP.
CITY OF BURNET BURNET COUNTY, TEXAS			
SANITARY SEWER REHABILITATION			
SANITARY SEWER DETAILS			
JONES CARTER			
Texas Board of Professional Engineers Registration No. F-439 6415 Reading Road • Rosenberg, Texas 77471 • 281.342.2033			
SCALE:	As Shown	DGN. BY:	JLB
DATE:	NOVEMBER 2017	DWN. BY:	DRK
JOB NO.:	0A737-0004-00	DWG. NO.:	
SUBMITTED:		SURV. BY:	
		F.B. NO.:	
SHEET NO. 8 OF 10			



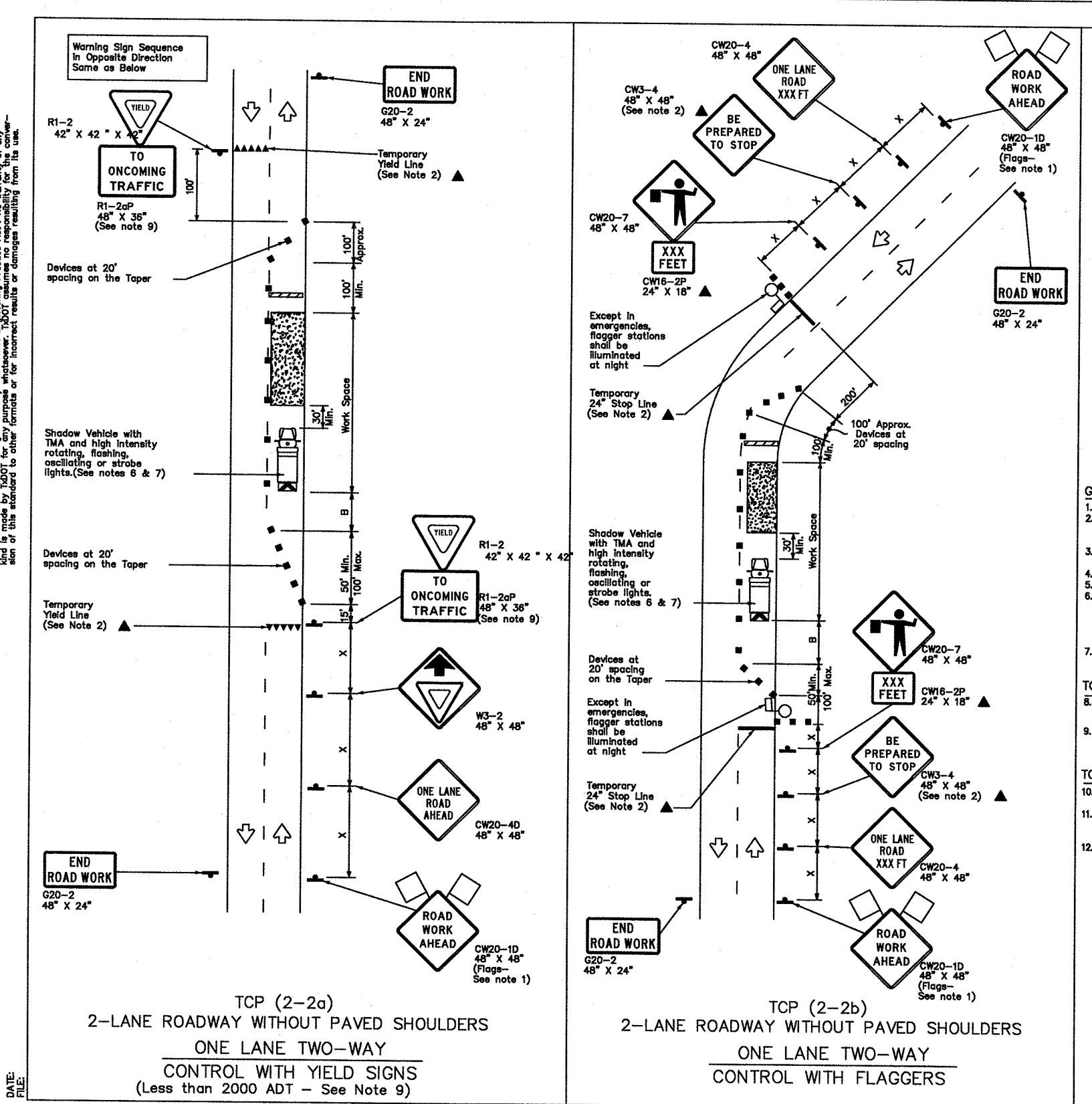
LEGEND

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

Postel Speed	Formula	Minimum Taper Lengths	Suggested Maximum Spacing	Minimum Spacing	Suggested Longitudinal Buffer Spacing
30	150'	150'	180'	30'	120'
35	165'	165'	195'	30'	120'
40	180'	180'	210'	30'	120'
45	195'	195'	225'	30'	120'
50	210'	210'	240'	30'	120'
55	225'	225'	255'	30'	120'
60	240'	240'	270'	30'	120'
65	255'	255'	285'	30'	120'
70	270'	270'	300'	30'	120'
75	285'	285'	315'	30'	120'

GENERAL NOTES

- Flag attached to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol...
- Flagger control should NOT be used unless roadway conditions or heavy traffic volume require additional controls to safely control traffic.
- DO NOT PASS. PACE CAUTION and construction regulatory speed zone signs may be installed downstream of the ROAD WORK AHEAD signs.
- When the work zone is made up of several work spaces, the signs should be placed in the first work space and the ROAD WORK AHEAD signs should be placed in the last work space.
- Additional Shadow Vehicles with TMA may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- When traffic is directed over a white section, channelizing devices which separate two-way traffic should be placed on ramps at 20', or 15' if posted speed is 35 mph or lower, and for posted speeds of 15 mph where S is the speed in mph. This taper device spacing is intended for the area of channelizing markings and not the work space.



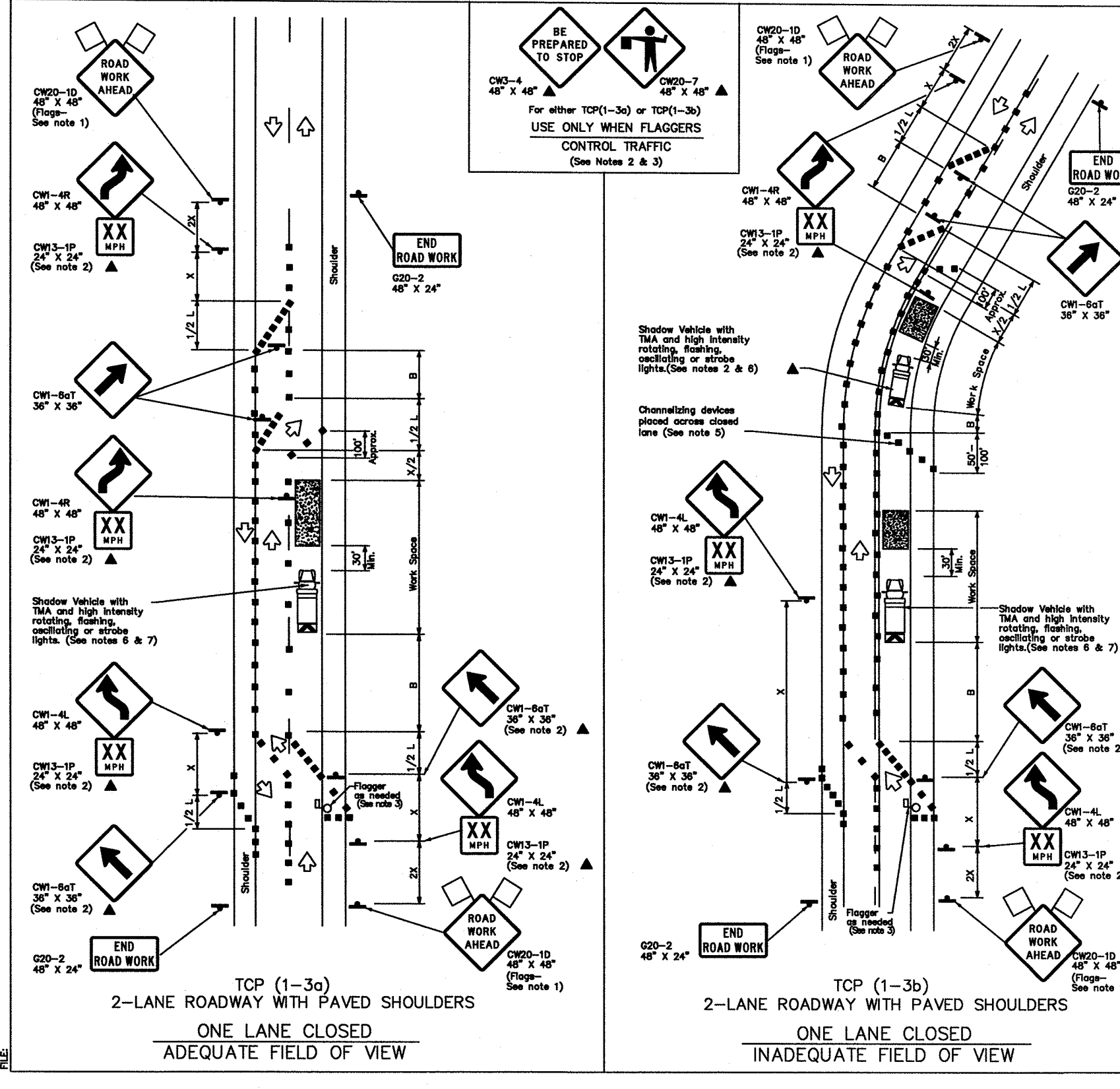
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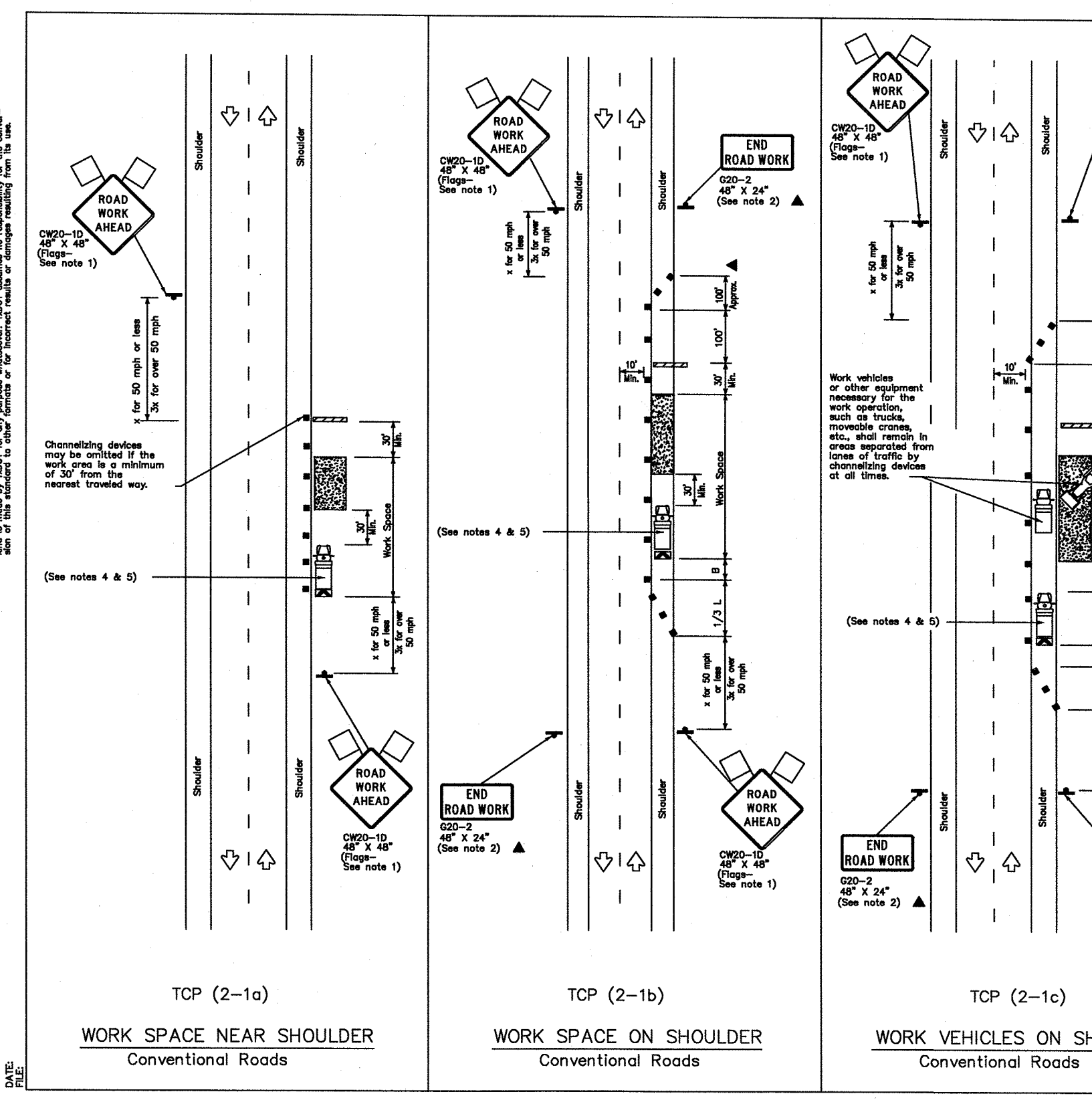
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CITY OF BURNET
BURNET COUNTY, TEXAS

SANITARY SEWER REHABILITATION

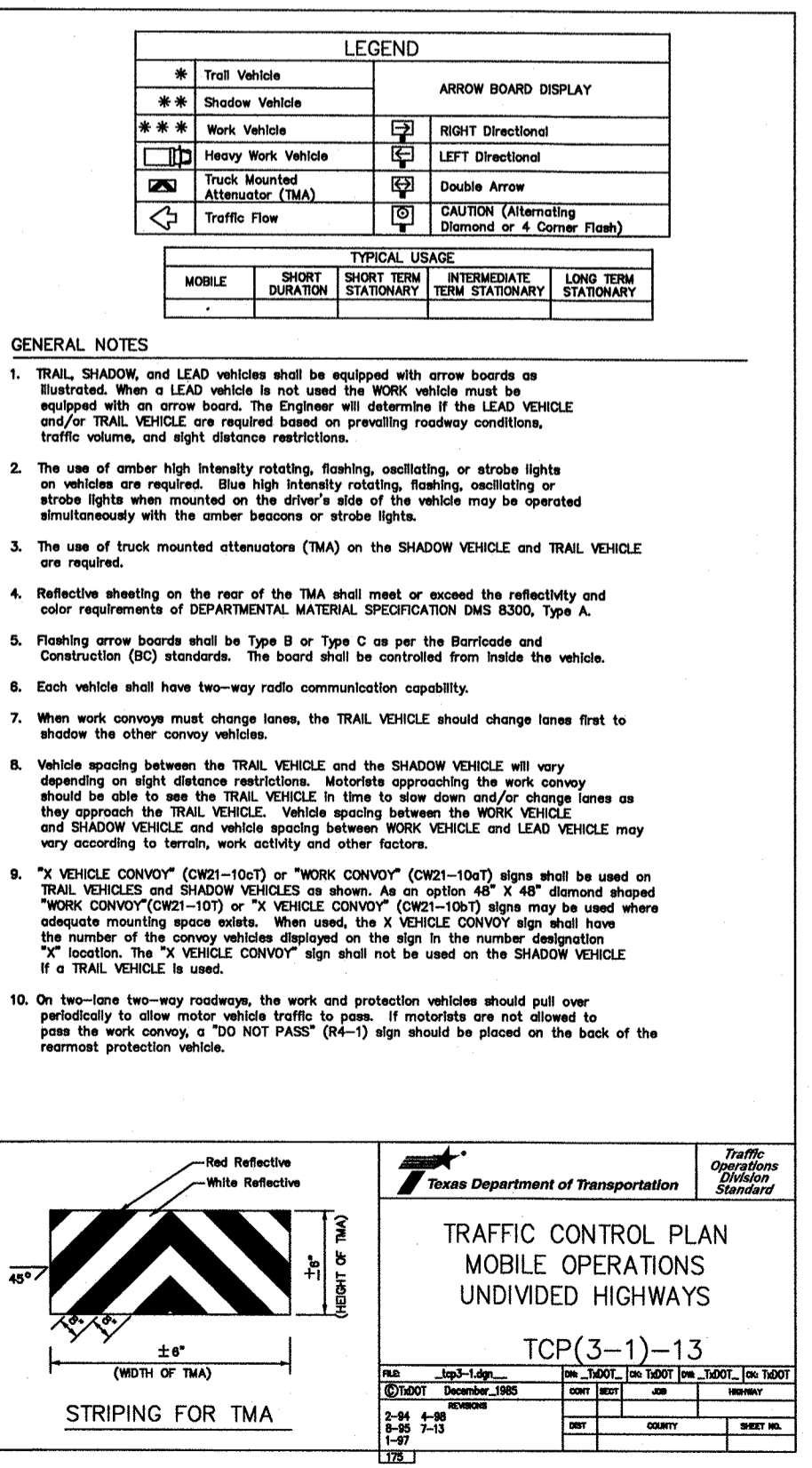
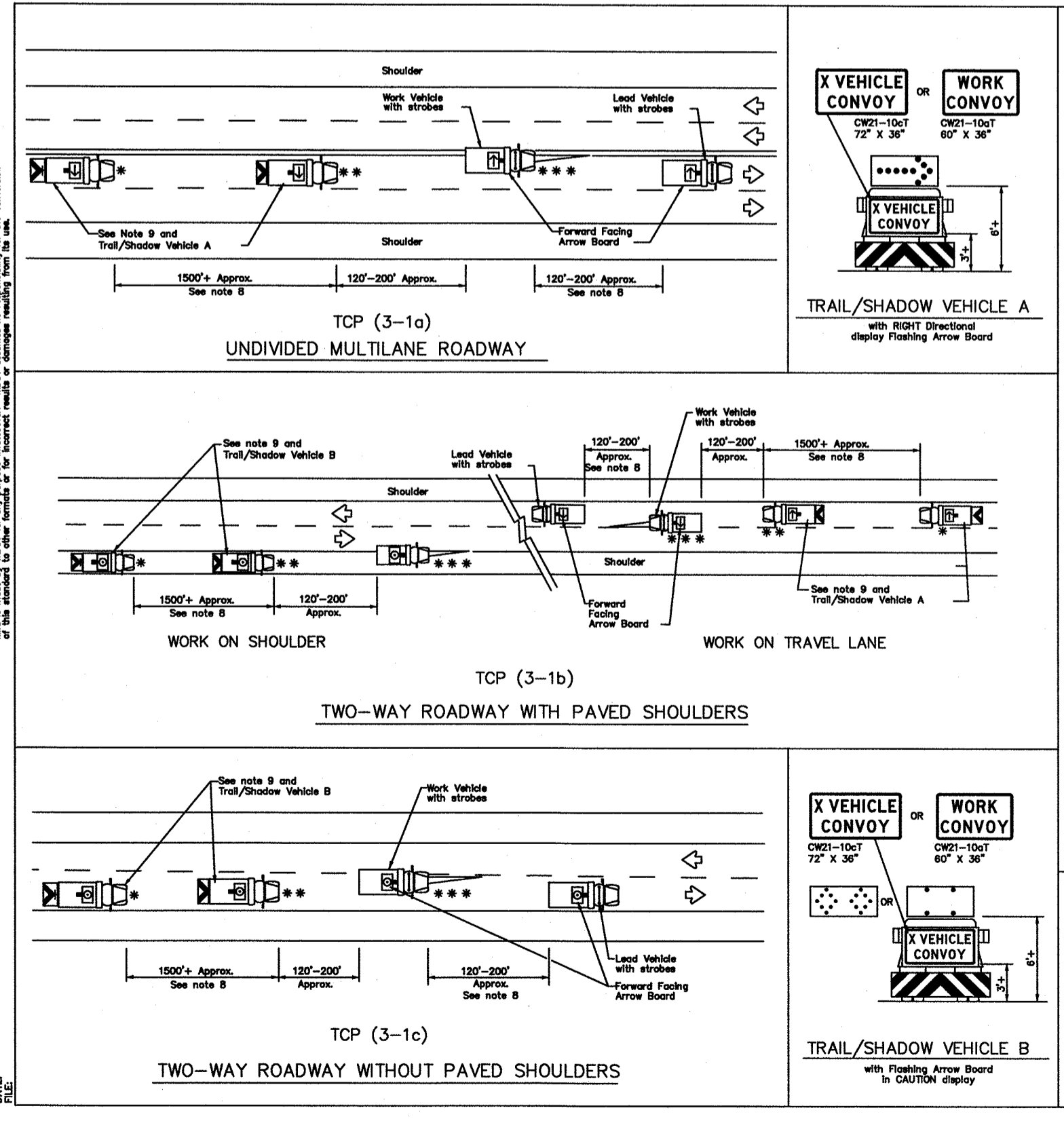
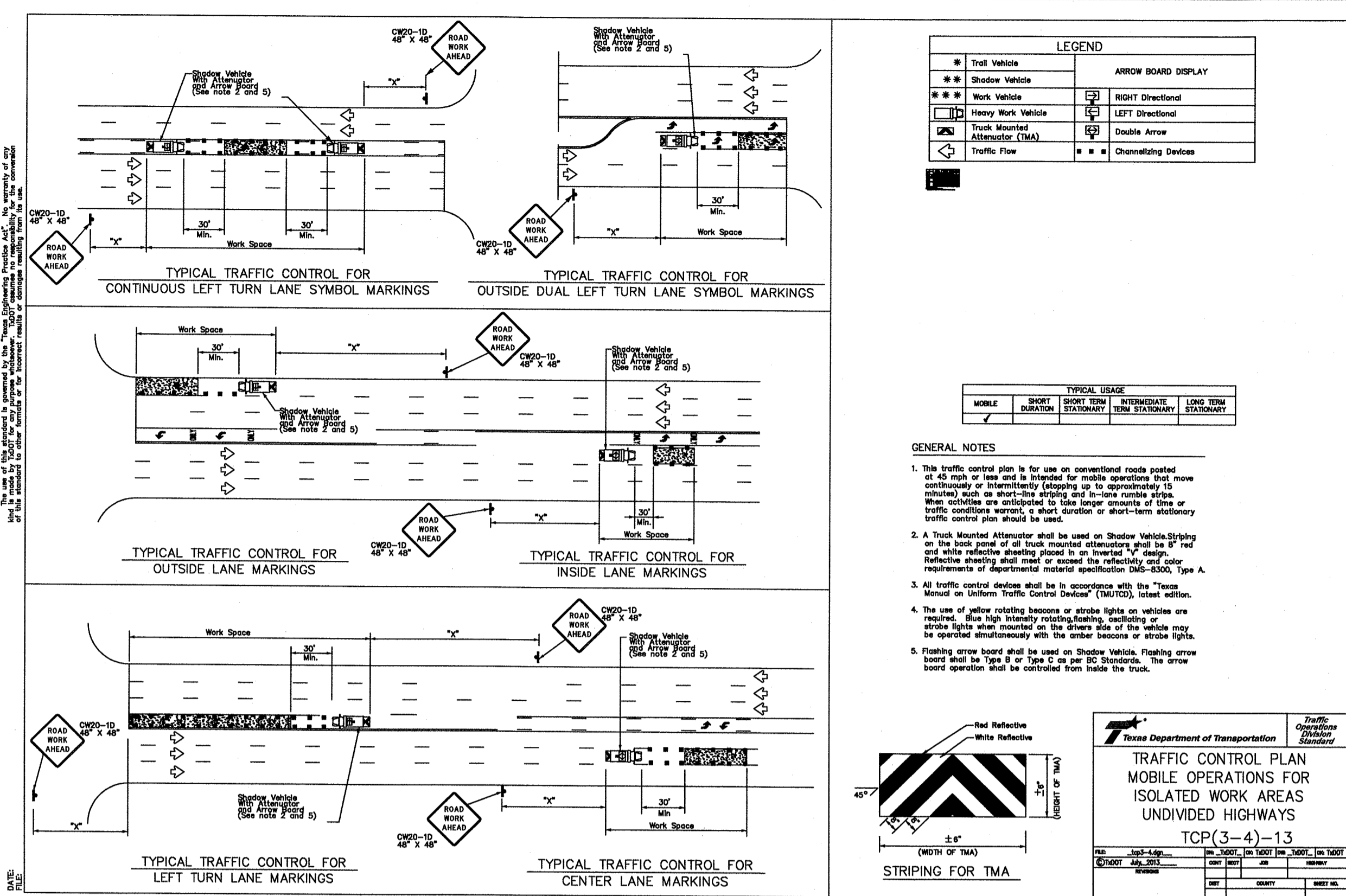
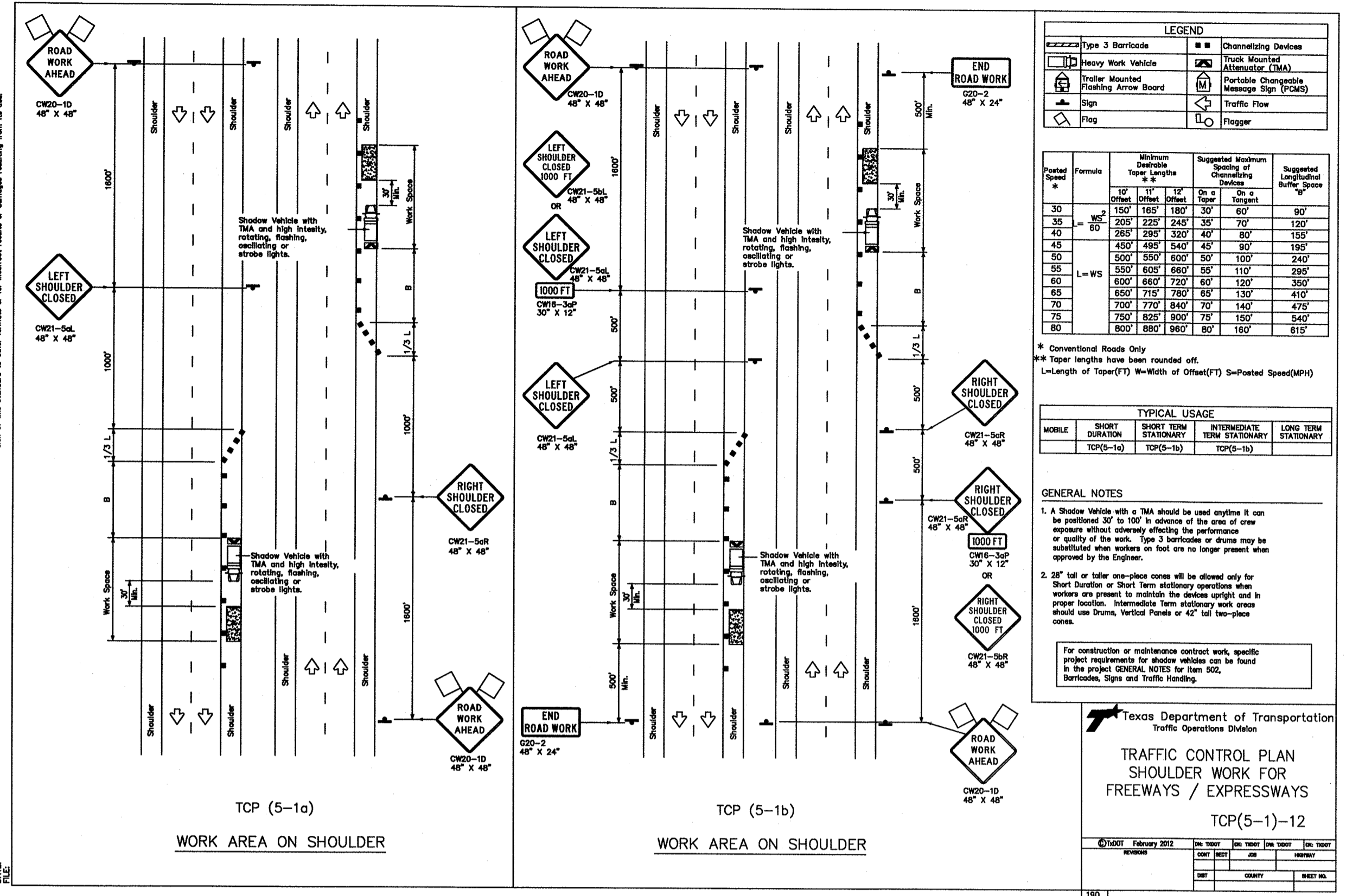
TRAFFIC CONTROL PLAN
SHEET 1 OF 2

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
6415 Reading Road • Rosenberg, Texas 77471 • 281.342.2033

SCALE: As Shown DGN. BY: JLB
DATE: NOVEMBER 2017 DWN. BY: DRK
JOB NO. QA737-0004-00 DWG. NO.:
SUBMITTED: SURV. BY:
F.B. NO.:

STATE OF TEXAS
JARED L. BIEMAN
123291
PROFESSIONAL ENGINEER
11/17

SHEET NO. 9 OF 10



NO.	DATE	REVISIONS	APP.

CITY OF BURNET
BURNET COUNTY, TEXAS

SANITARY SEWER REHABILITATION

**TRAFFIC CONTROL PLAN
SHEET 2 OF 2**

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
6415 Reading Road • Rosenberg, Texas 77471 • 281.342.2033

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STATE OF TEXAS
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123291
LICENSED PROFESSIONAL ENGINEER

SHEET NO.
10
OF 10