

SPEED	SIGN SPACING (ft)		TAPER LENGTH (ft)		OPTIONAL BUFFER LENGTH (ft)		CHANNEL SPACING (ft)	
	Undivided (U)	Divided (D)	Shoulder (S)	Filter Cloth (FC)	Shoulder (S)	Filter Cloth (FC)	Shoulder (S)	Filter Cloth (FC)
0-25	200	-	75	-	120	-	30	30
30-45	200	-	100	-	150	-	40	40
50-55	300	-	150	-	225	-	60	60
60-70	1000	-	250	-	375	-	100	100

TYPE ROADWAY	SIGN HEIGHT	MAXIMUM WORK ZONE LENGTH (ft)	CONSTRUCTION	
			Color or Chain	Truck Mounted Attenuator (TMA)
URBAN	7' Post	1.5 M	Orange	Yes
RURAL UNDIVIDED	7' Post	3 M	Orange	Yes

In addition to shoulder work, this typical application is applicable to work beyond shoulder where vehicles and equipment are parked on the shoulder.

A protective vehicle shall be used while work is in progress. The protective vehicle shall be equipped with a TMA and positioned at least 150 ft. in advance of the work space.

If encroachment onto driving surface occurs and there is not 10 ft. of driving surface available for the lane of traffic, that traffic lane shall be closed. Refer to appropriate lane closure typical applications.

If an arrow panel is used for an operation on the shoulder, the caution mode shall be displayed.

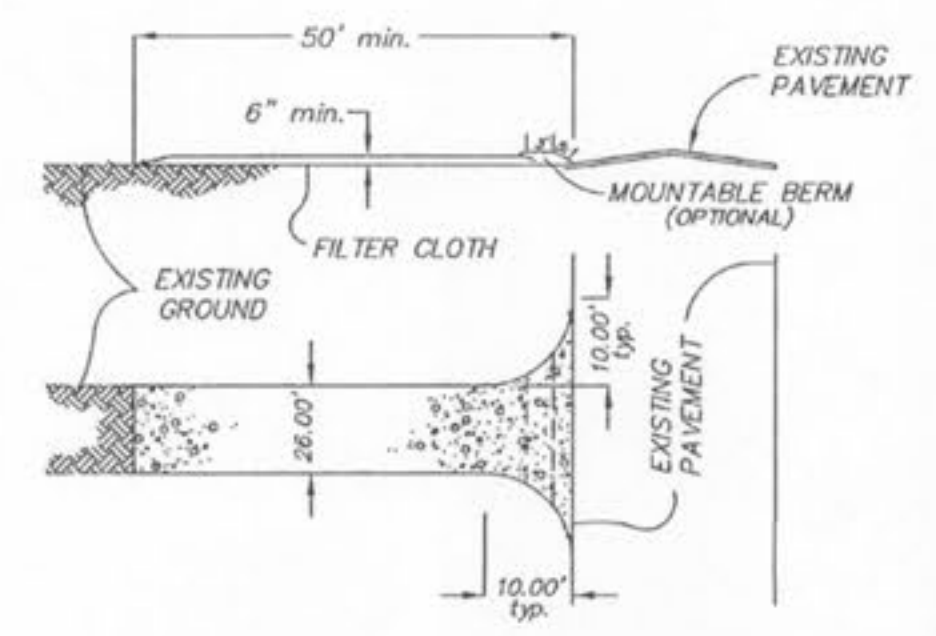
For short duration or mobile operations, signs, characterization devices and protective vehicles may be reduced or eliminated if a work vehicle with activated rotating lights or strobe lights is used. However, if limited sight distance exists as a stationary operation or workers are on foot, a protective vehicle shall be used. This protective vehicle shall be equipped with a TMA and truck mounted flashing arrow-panel and positioned at least 150 ft. in advance of the work space or work vehicle, as applicable. If a protective vehicle is used, a vehicle mounted sign shall be mounted at a recommended height of 48 in. above the road surface.

For work beyond shoulder, where vehicles and equipment are parked on the shoulder, the protective vehicle may be eliminated if a work vehicle with activated rotating lights or strobe lights is used.

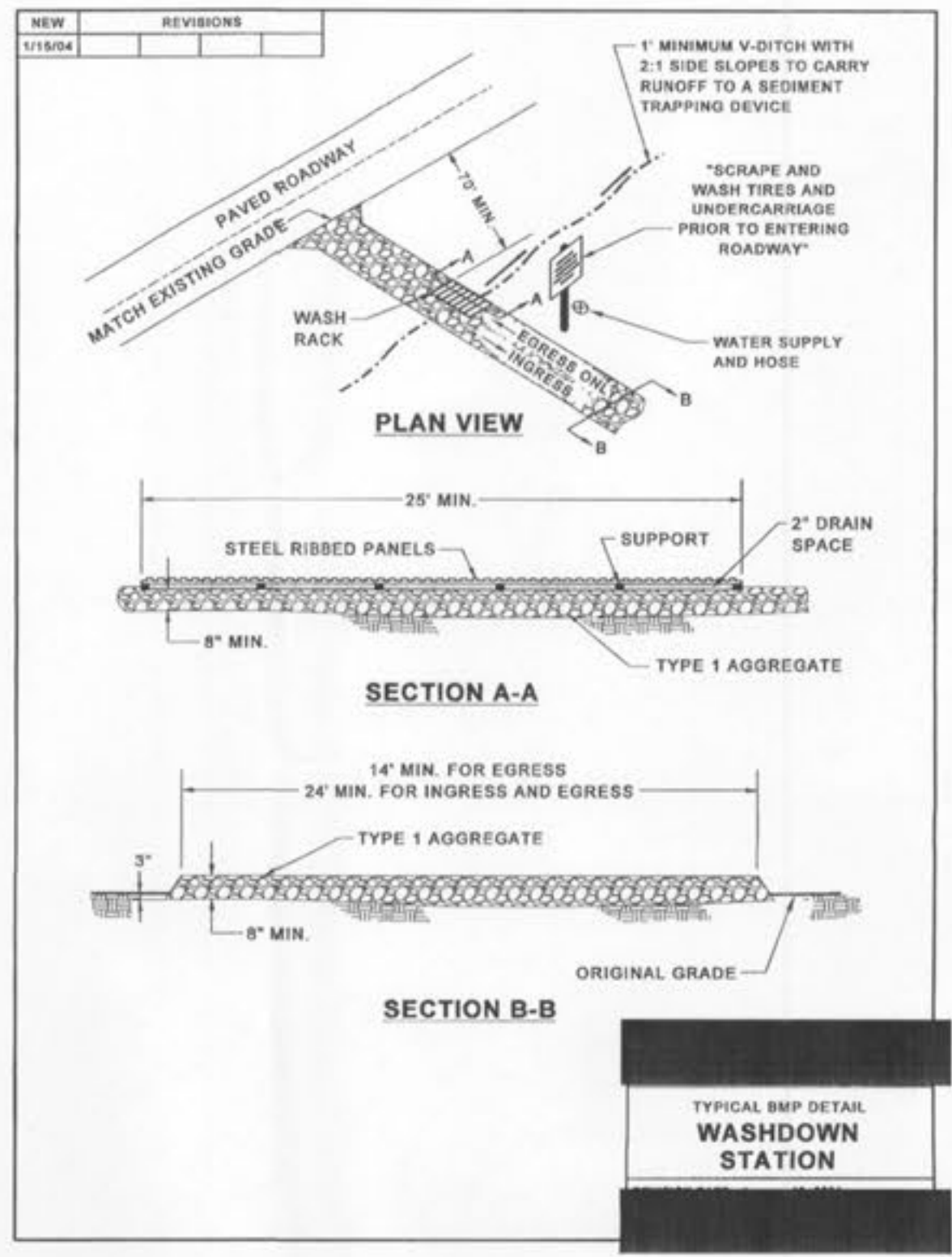
Additional warning signs shall be created at each intersection with another state highway within the work zone. Upon the direction of the supervisor, additional warning signs may be erected at other intersections within the work zone.

Other appropriate signs may be used in lieu of SHOULDER WORK - AHEAD signs.

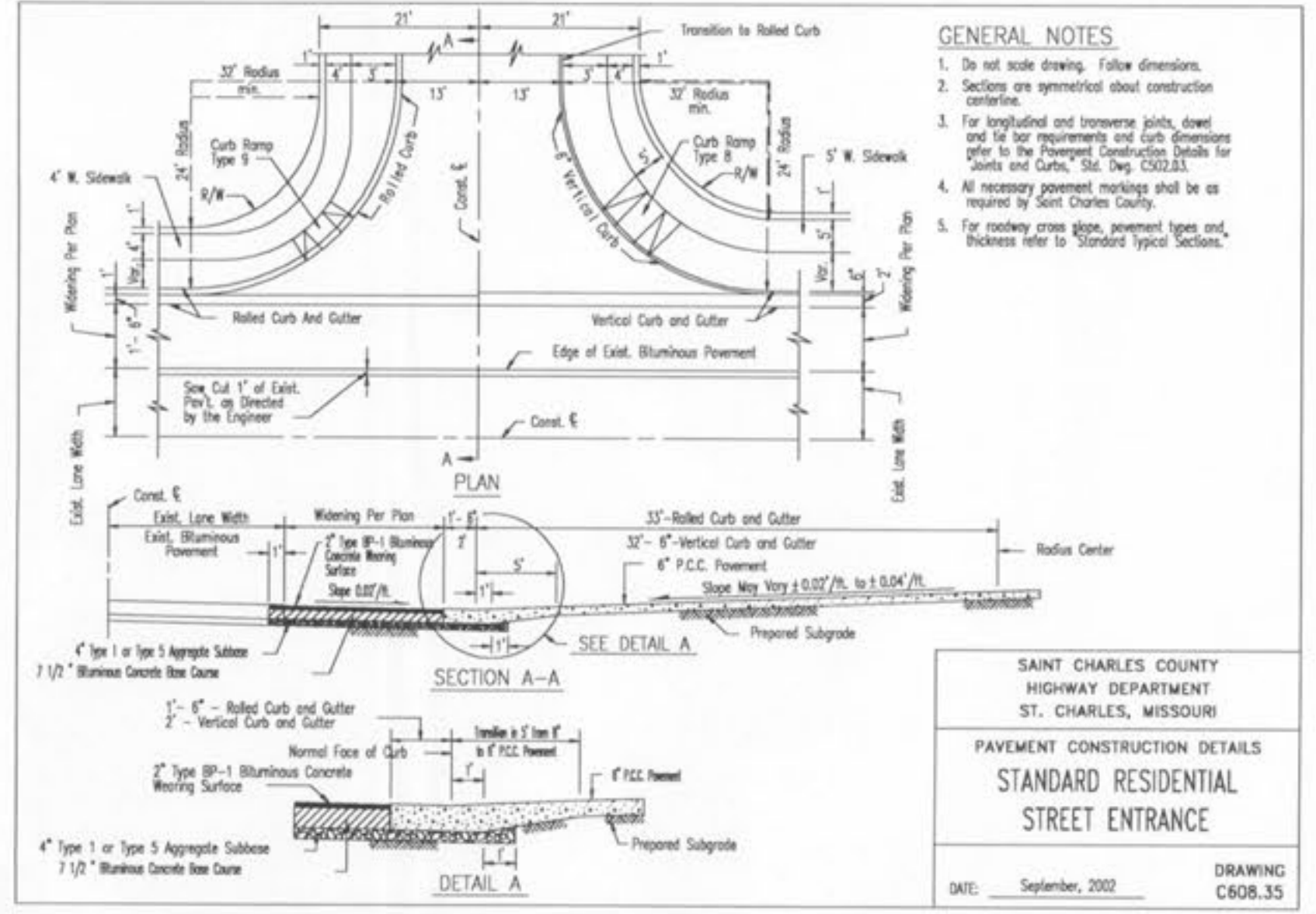
TA-2



- CONSTRUCTION SPECIFICATIONS**
- Stone Size: Use 2" stone or reclaimed or recycled concrete equivalent.
  - Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
  - Thickness: Not less than six (6) inches.
  - Width: twenty six (26) foot minimum, but not less than the full width at points where ingress or egress occurs.
  - Filter Cloth: Will be placed over the entire area prior to placing of the stone. Filter will not be required on a single family residence lot.
  - Surface Water: All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with a 5:1 slope will be permitted.
  - Maintenance: The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto a public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto the public right-of-way must be removed immediately.
  - Washing: Wheels shall be cleaned to remove sediment prior to entrance onto the public right-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  - Periodic inspection and needed maintenance shall be provided after each rain.

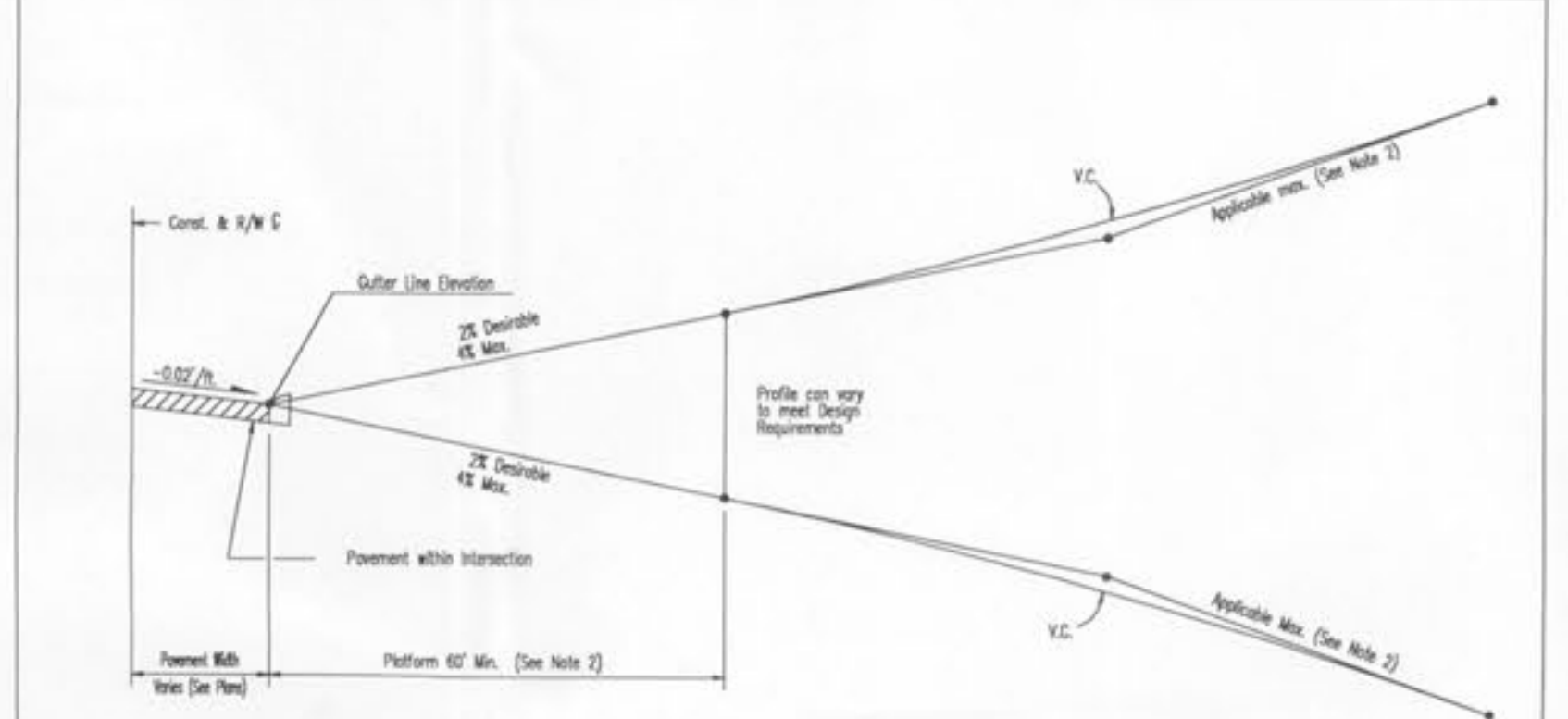


STABILIZED CONSTRUCTION ENTRANCE  
N.T.S.

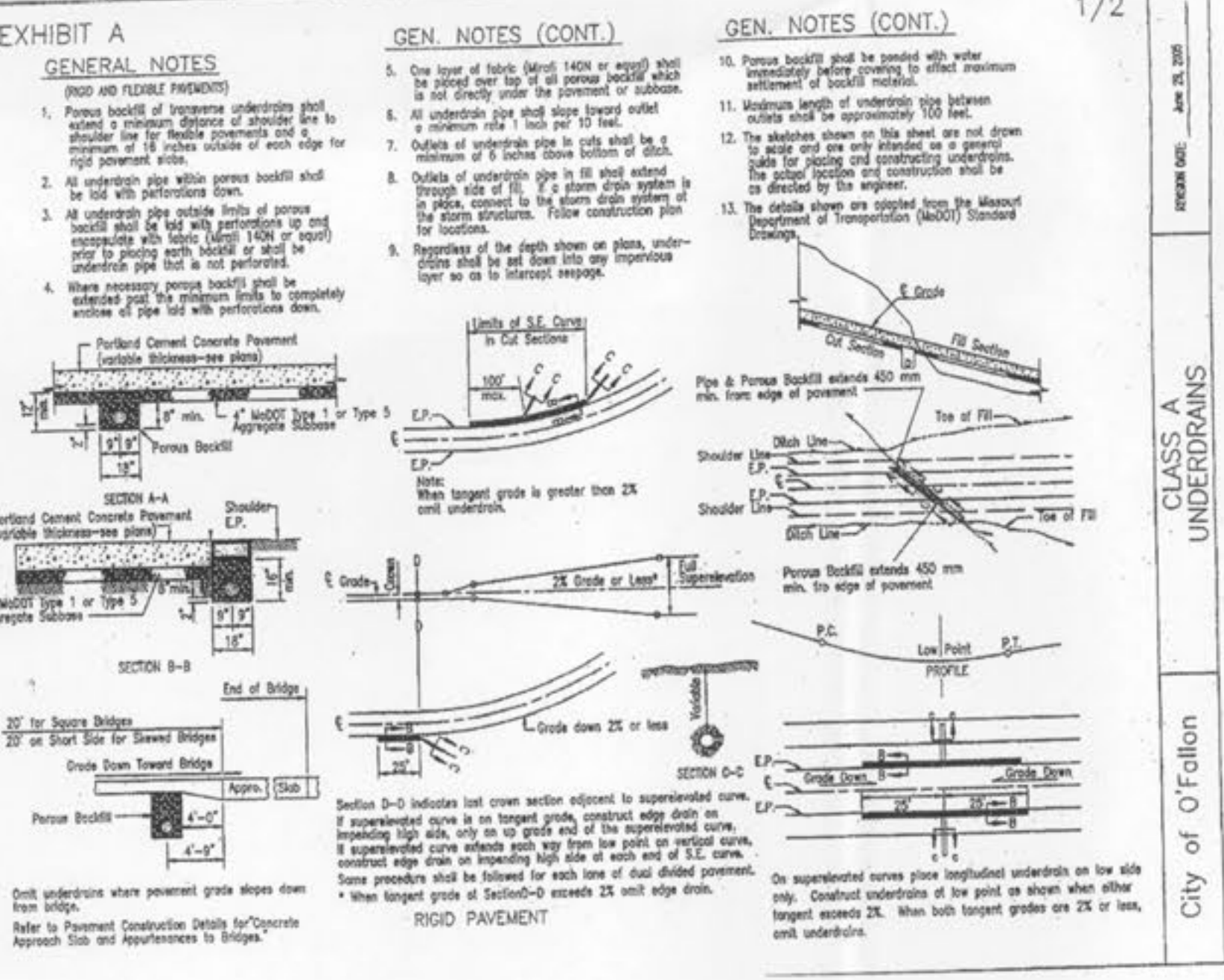


- GENERAL NOTES**
- Do not scale drawing. Follow dimensions.
  - Sections are approximate about construction centerline.
  - For longitudinal and transverse joints, closed end for placement and curb dimensions refer to the Standard Construction Details for Curb and Gutter, Sec. 02021.
  - All necessary pavement markings shall be as required by Saint Charles County.
  - For machine area signs, pavement types and thickness refer to Standard Typical Sections.

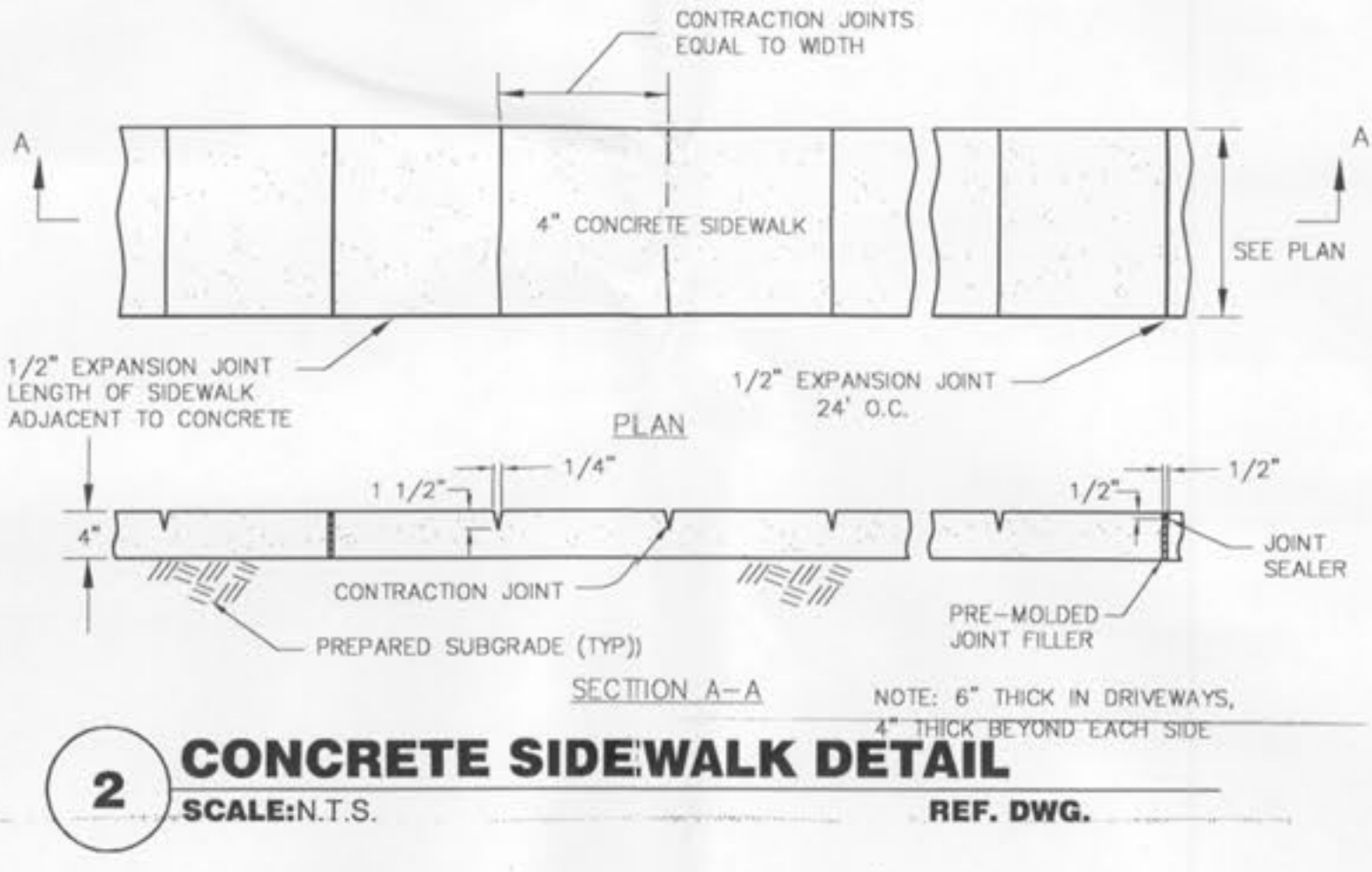
SAINT CHARLES COUNTY  
HIGHWAY DEPARTMENT  
ST. CHARLES, MISSOURI  
PAVEMENT CONSTRUCTION DETAILS  
STANDARD RESIDENTIAL  
STREET ENTRANCE  
DATE: September, 2002 DRAWING: C608.35



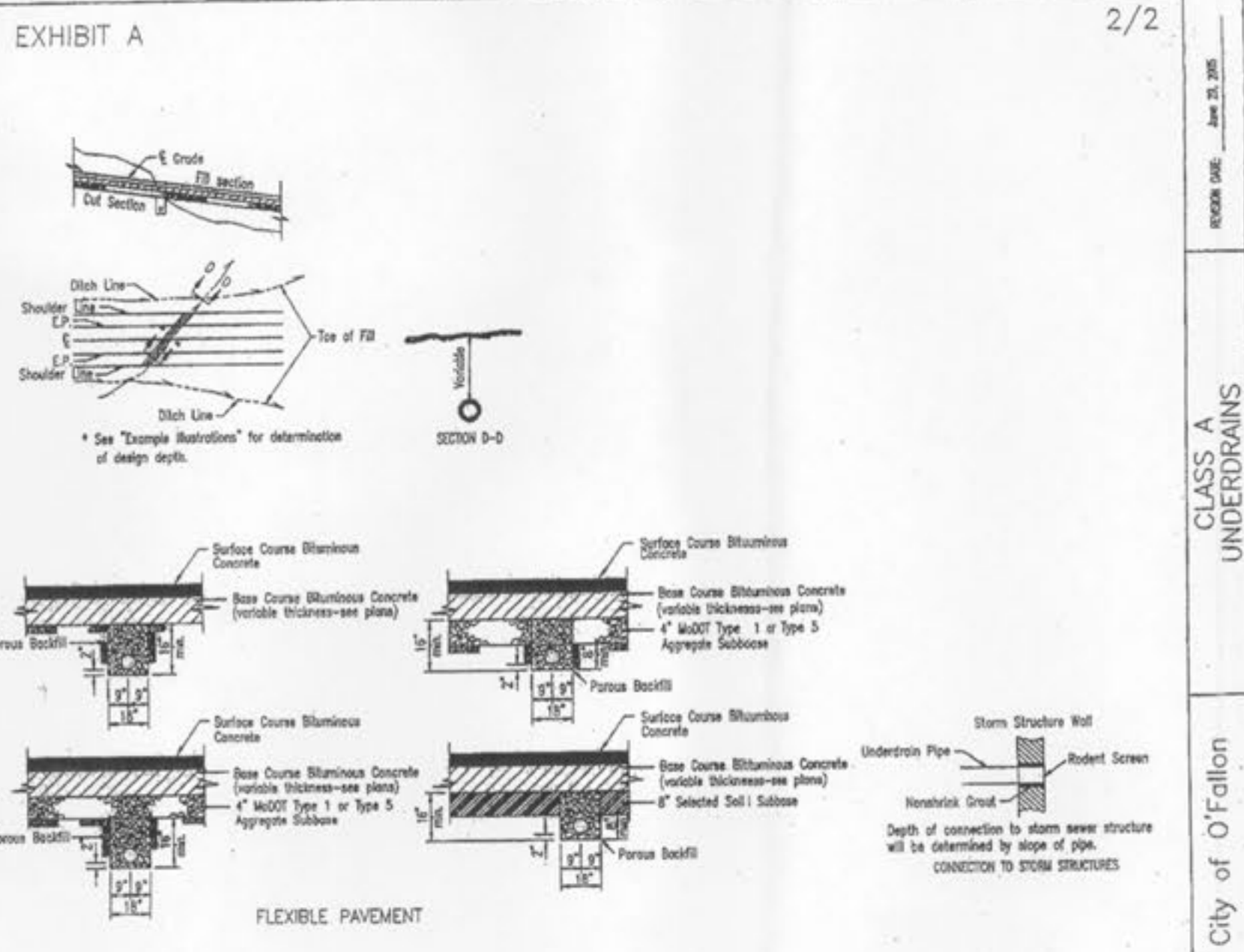
SAINT CHARLES COUNTY  
HIGHWAY DEPARTMENT  
ST. CHARLES, MISSOURI  
STREET INTERSECTION  
PLATFORM  
DATE: June, 2002 DRAWING: C203.54



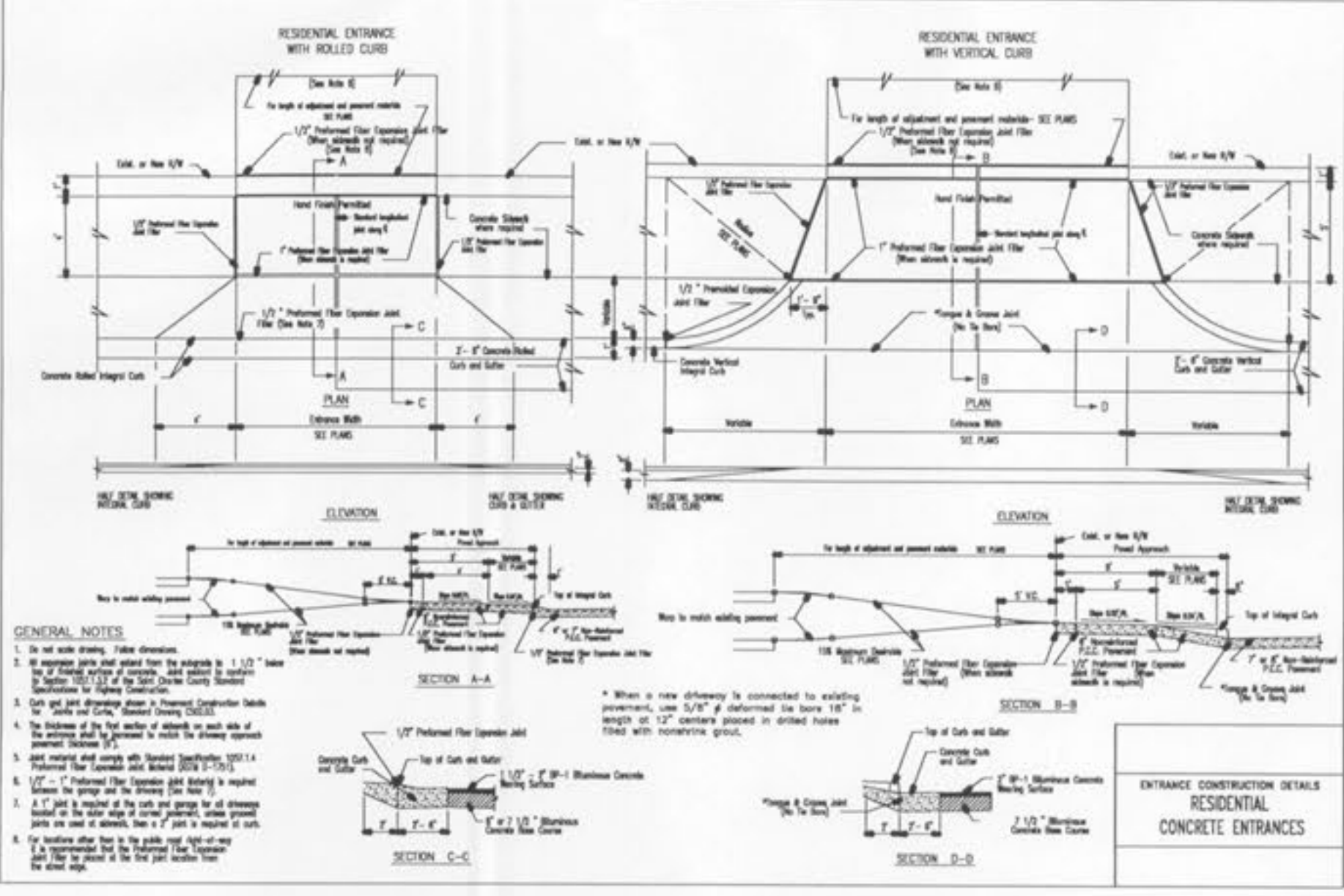
- EXHIBIT A**
- GENERAL NOTES**
- PROF AND FLEXIBLE PAVEMENTS
  - Provide backfill of granular underdrain shall extend a minimum distance of shoulder line to shoulder for flexible pavements and a minimum of 18 inches outside of each edge for rigid pavement side.
  - All underdrain pipe within porous backfill shall be laid with perforations down.
  - All underdrain pipe outside limits of porous backfill shall be laid with perforations up and encased in a concrete pipe (4" or 6" pipe) prior to placing earth backfill or shall be encased in concrete pipe but is not permitted.
  - Where necessary, porous backfill shall be eliminated and the minimum limits to completely encase pipe laid with perforations down.
- GEN. NOTES (CONT.)**
- One layer of fabric (Metrol 1420 or equal) shall be placed over top of all porous backfill which is not directly under the pavement or subbase.
  - All underdrain pipe shall slope toward outlet a minimum of 1 inch per 10 feet.
  - Outlet of underdrain pipe in cuts shall extend through side of cut. If a storm drain system is in place, connect to the storm drain system of the storm structure. Follow construction plan as directed by the engineer.
  - The outlet location and construction shall be as directed by the engineer.
  - Reynolds of the depth shown on plans, underdrains shall be set down into any impervious layer so as to intersect it.
  - Porous backfill shall be covered with water repellent before covering to effect maximum infiltration at local collector.
  - Maximum length of underdrain pipe between outlets shall be approximately 100 feet.
  - The sketches shown on this sheet are not drawn to scale and are only intended as a general guide for placing and constructing underdrains. The actual location and construction shall be as directed by the engineer.
  - The details shown are typical for the Missouri Department of Transportation (MoDOT) Standard Department of Transportation (MoDOT) Standard.



CONCRETE SIDEWALK DETAIL  
SCALE: N.T.S. REF. DWG.



FLEXIBLE PAVEMENT



- GENERAL NOTES**
- Do not scale drawing. Follow dimensions.
  - Use or E/E dependent upon street classification. May be varied with Street Grade Approval only by County Highway Department. Special design may be required.
  - See graph "Design Control for Vertical Curves" for slopes of vertical curves. Refer to page 20.50-1 of the "Design Criteria for the Preparation of Improvement Plans."

SAINT CHARLES COUNTY  
HIGHWAY DEPARTMENT  
ST. CHARLES, MISSOURI  
ENTRANCE CONSTRUCTION DETAILS  
RESIDENTIAL  
CONCRETE ENTRANCES  
DATE: June, 2002 DRAWING: C203.54

LAYOUT/DETAILS  
MAY 02, 2006  
DRAWING: S:\WORK\2005\05-143\UDS\_05-143.dwg  
PLOT: 05-143.dwg

**REVISIONS**

NO.	DATE	DESCRIPTION
1	02-28-05	CITY OF O'FALLON COMMENTS
2	02-28-05	CITY OF O'FALLON COMMENTS
3	04-03-05	CITY OF O'FALLON COMMENTS
4	05-02-06	MOIST COMMENTS

DEVELOPER/OWNER:  
R3 DEVELOPMENT, LLC  
7800 HIGHWAY N  
O'FALLON, MO 63366  
(636) 561-3948

THE PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE ARE REQUIRED FOR ALL PLANS AND SPECIFICATIONS. THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER SHALL BE PLACED ON THE FRONT OF THE DRAWING. THE SEAL AND SIGNATURE OF THE ARCHITECT SHALL BE PLACED ON THE REVERSE OF THE DRAWING. THE SEAL AND SIGNATURE OF THE SURVEYOR SHALL BE PLACED ON THE REVERSE OF THE DRAWING.

SAINT CHARLES COUNTY  
HIGHWAY DEPARTMENT  
ST. CHARLES, MISSOURI  
STREET & SWPP DETAILS

THE HEIGHTS  
1809 HIGHWAY 79  
O'FALLON, MO 63366

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**Cole** and ASSOCIATES INCORPORATED  
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P: 314-964-9687 F: 314-964-0587

DESIGNED BY: JCB  
DRAWN BY: JCB  
CHECKED BY: MB  
DATE: 10/03/05  
Job Number: 05-143  
Sheet Number: C10.1

P&Z #2705 & 2705.01