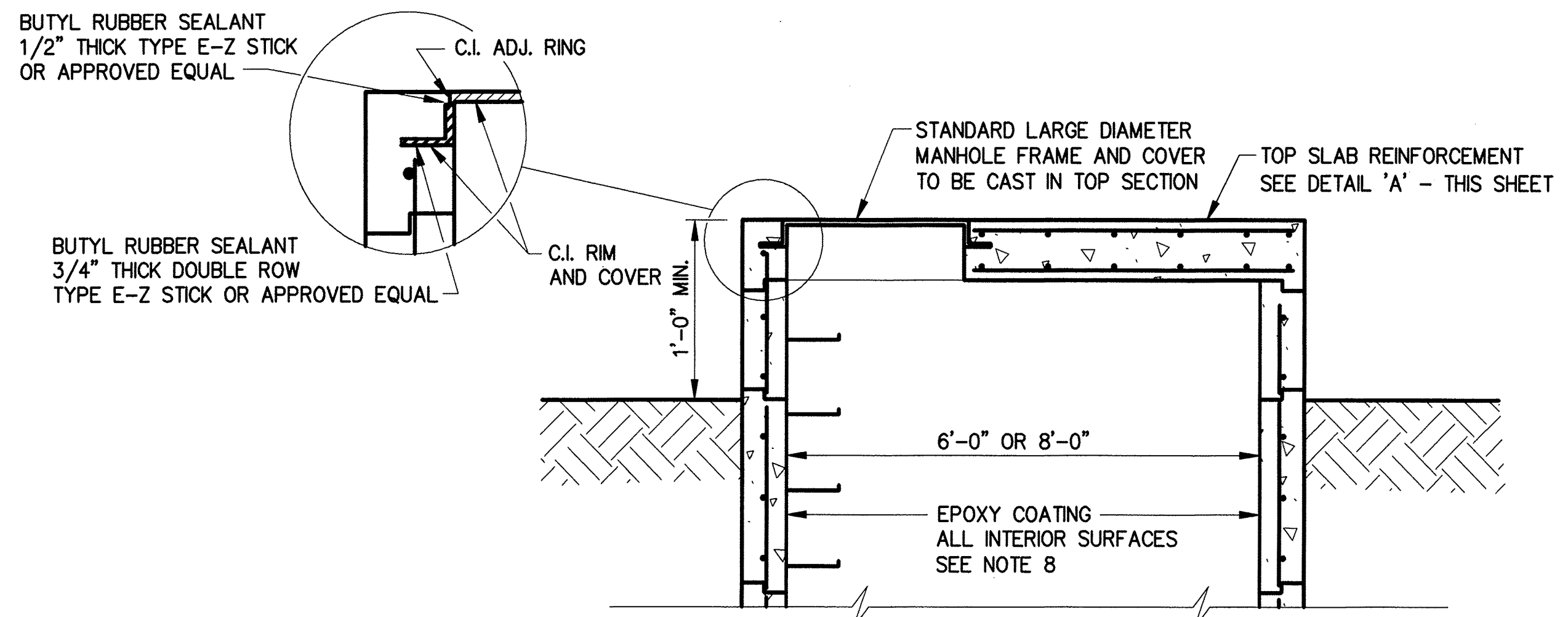
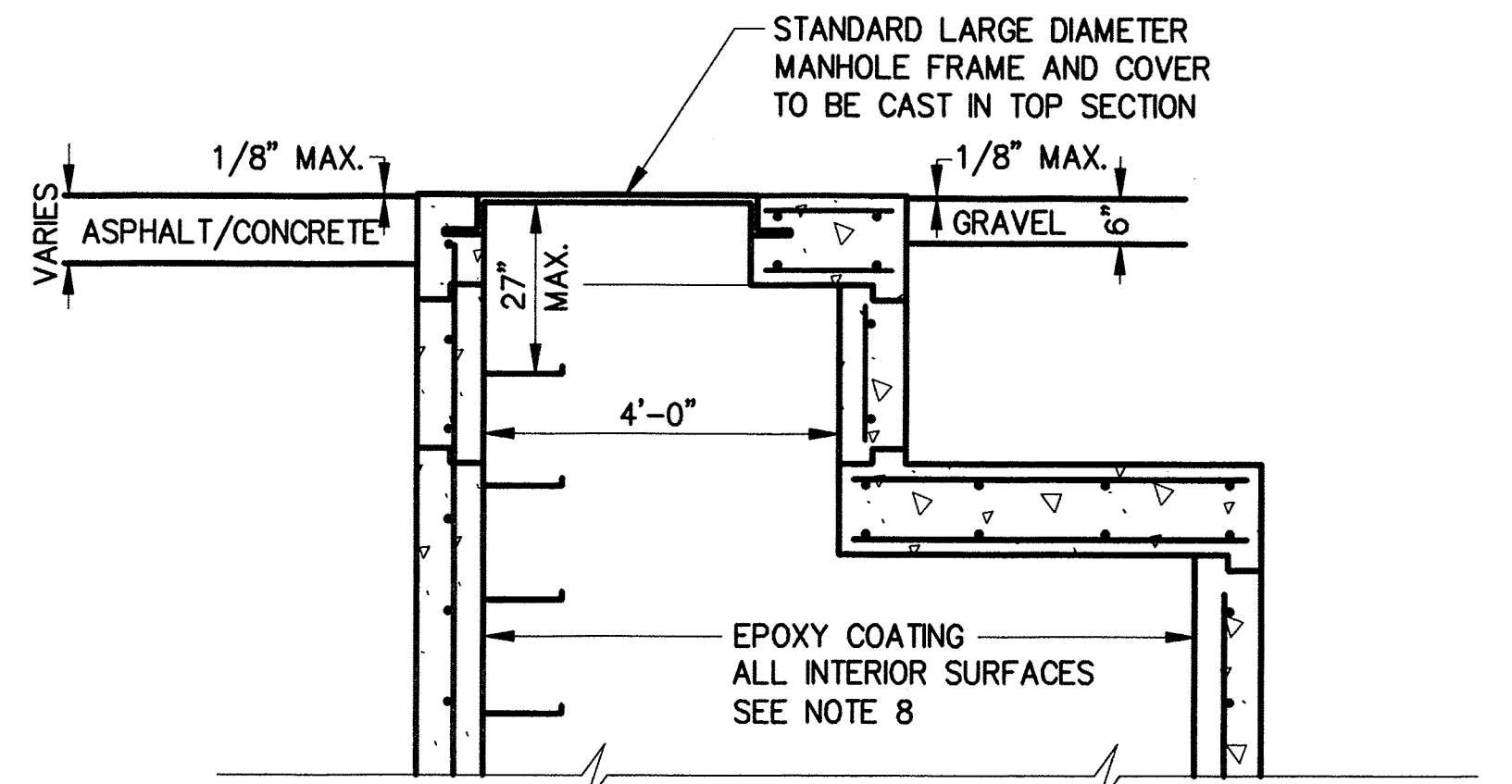


NOTE:  
SMOOTH WALL AT TRANSITION FROM CHIMNEY TO FULL SECTION IS REQUIRED. MAX. OFFSET 2"

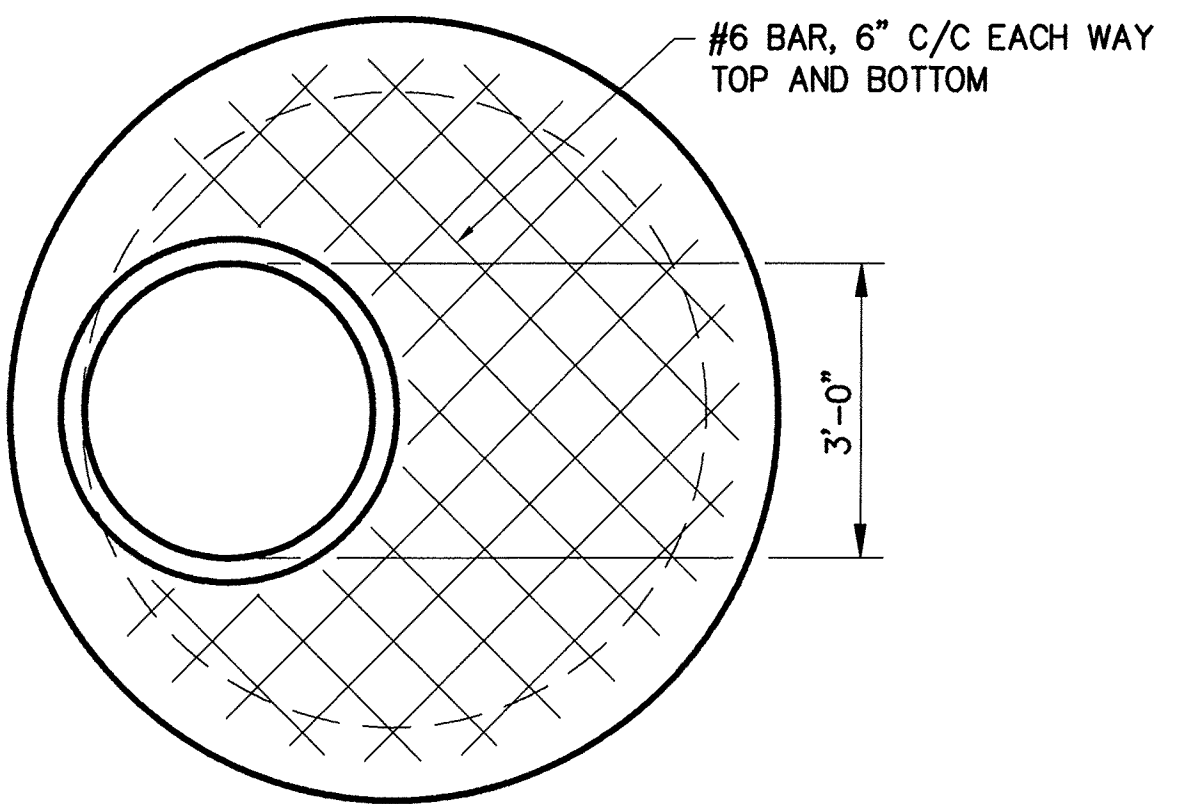
PRECAST MANHOLE TOP  
**NON-PAVED AREAS (FLUSH)**  
NOT TO SCALE



PRECAST MANHOLE TOP  
**NON-PAVED AREAS (RAISED)**  
NOT TO SCALE



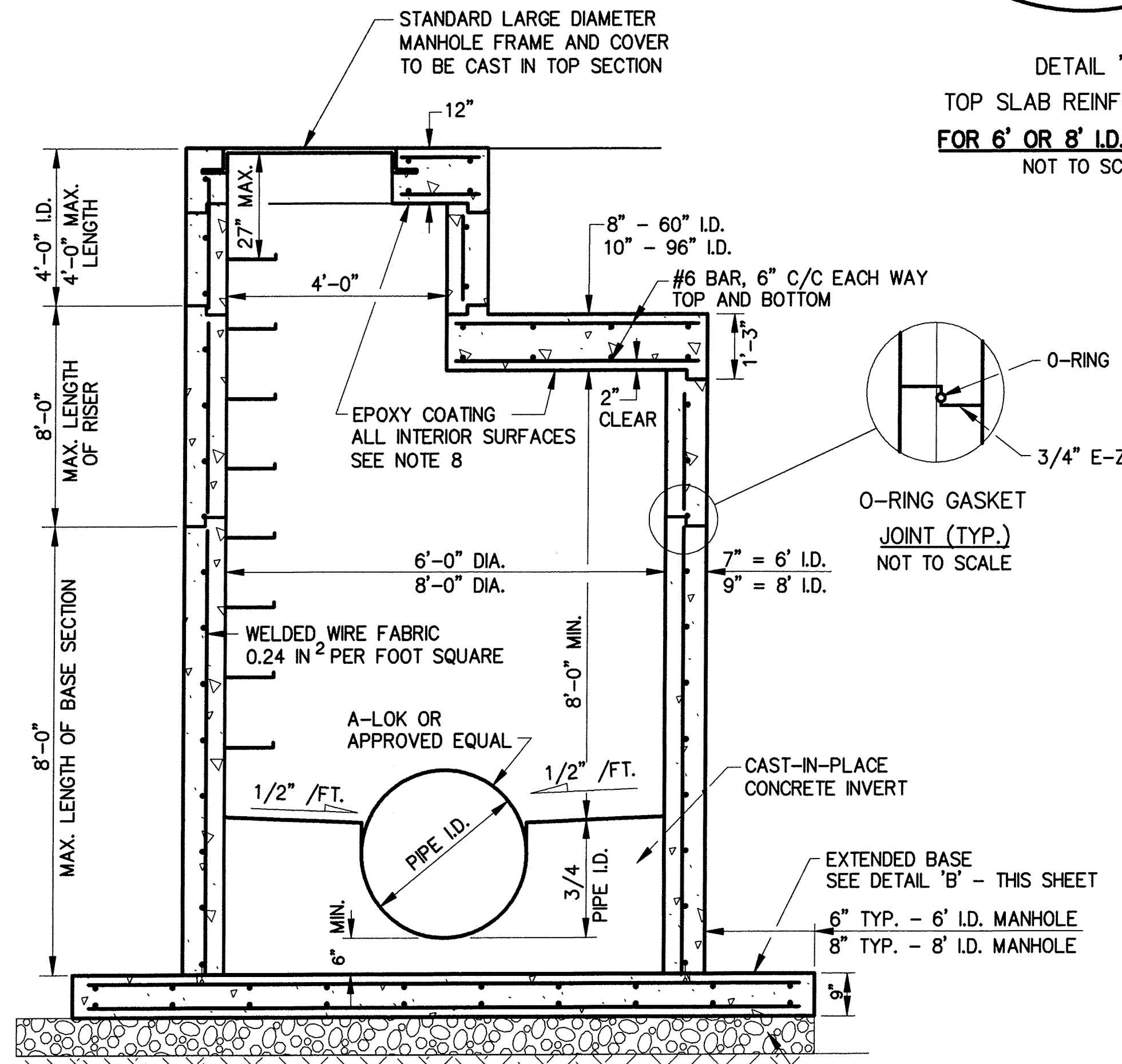
PRECAST MANHOLE TOP  
**TRAFFIC AREAS**  
NOT TO SCALE



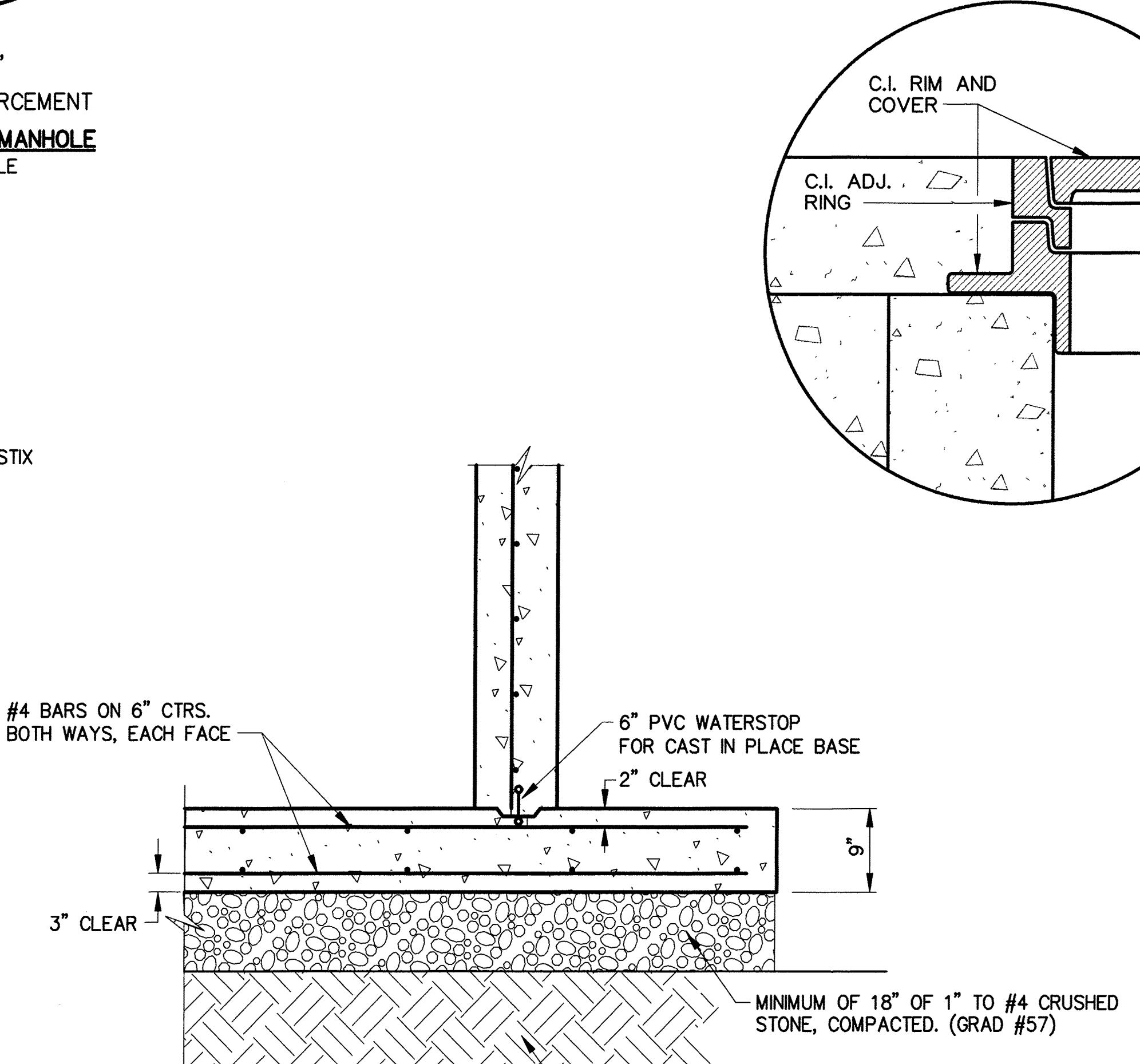
DETAIL 'A'  
TOP SLAB REINFORCEMENT  
FOR 6' OR 8' I.D. MANHOLE  
NOT TO SCALE

**NOTE:**

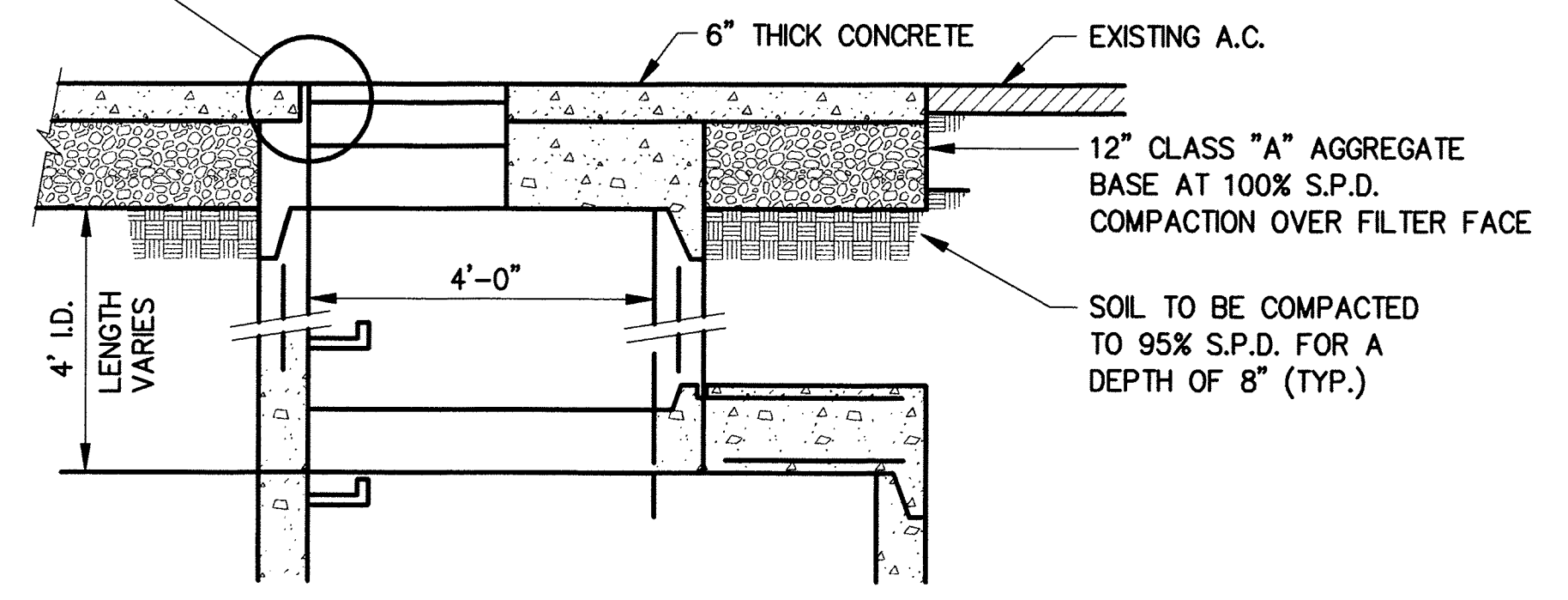
- ELEVATION AND ARRANGEMENT OF MANHOLE TOPS SHALL BE IN ACCORDANCE WITH TOP DETAILS.
- SMOOTH WALLS AT TRANSITION FROM CHIMNEY TO FULL SECTION IS REQUIRED. MAX. OFFSET 2"
- CONCRETE SHALL BE 4000 PSI (MIN).
- SEAL TONGUE AND GROOVE JOINTS OF PRECAST MANHOLE SECTIONS WITH RUBBER 'O'-RING GASKETS THAT CONFORM TO ASTM C443.
- OPENINGS FOR INLETS AND OUTLETS SHALL BE MADE TO THE OUTSIDE DIAMETER OF THE INLETS AND OUTLET PIPES AND SHALL PROVIDE A WATERTIGHT AND FLEXIBLE JOINT. LOCATION OF INLETS AND OUTLETS SHALL BE SHOWN BY THE PLANS. FLEXIBLE GASKETS SHALL BE MAINTAINED IN ACCORDANCE WITH RUBBER JOINT SPECIFICATIONS ASTM C443 AND SHALL MEET THE REQUIREMENTS OF ASTM C425 FOR COMPRESSION JOINTS. THE CONNECTION OF THE PIPE TO THE MANHOLE WALL SHALL BE SEALED WITH AN A-LOK OR APPROVED EQUAL.
- PRECAST SECTIONS SHALL MEET OR EXCEED REQUIREMENTS OF ASTM C-478 STANDARD SPECIFICATIONS FOR PRECAST CONCRETE MANHOLES.
- THE MANHOLE LOCKING SYSTEM SHALL BE MCGARD MAN-LOCK 117069 OR APPROVED EQUAL WHICH SHALL BE KEYPED TO THE CITY OF TULSA STANDARD LOCK. (IF REQUIRED)
- ALL INTERIOR EPOXY MANHOLE COATINGS MUST BE HI-BUILD EPOXY RAVEN 405, PLASGUARD 4500S, OR APPROVED EQUAL. A COAT OF 80 MILS MUST BE APPLIED.
- REINFORCING STEEL SHALL BE GR. 60.



PRECAST MANHOLE (TYPICAL)  
NOT TO SCALE



DETAIL 'B' - EXTENDED BASE (IF REQUIRED)  
NOT TO SCALE



| REVISION | BY | DATE |
|----------|----|------|
|          |    |      |
|          |    |      |
|          |    |      |

CITY ENGINEER  
*[Signature]*  
DESIGN MANAGER  
*[Signature]*

CITY OF TULSA, OKLAHOMA  
ENGINEERING SERVICES DEPARTMENT

STANDARD DETAILS FOR 6' - 8'  
SANITARY SEWER MANHOLES

DATE: OCTOBER 2013  
STD. 331