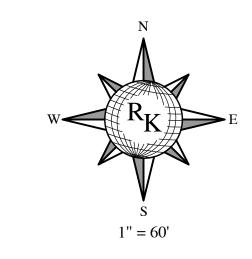
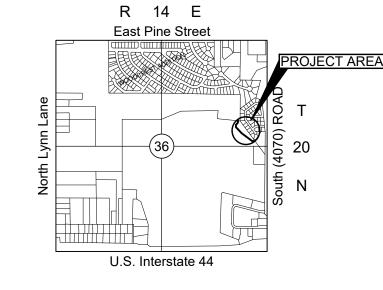


CHEROKEE NATION BUSINESSES

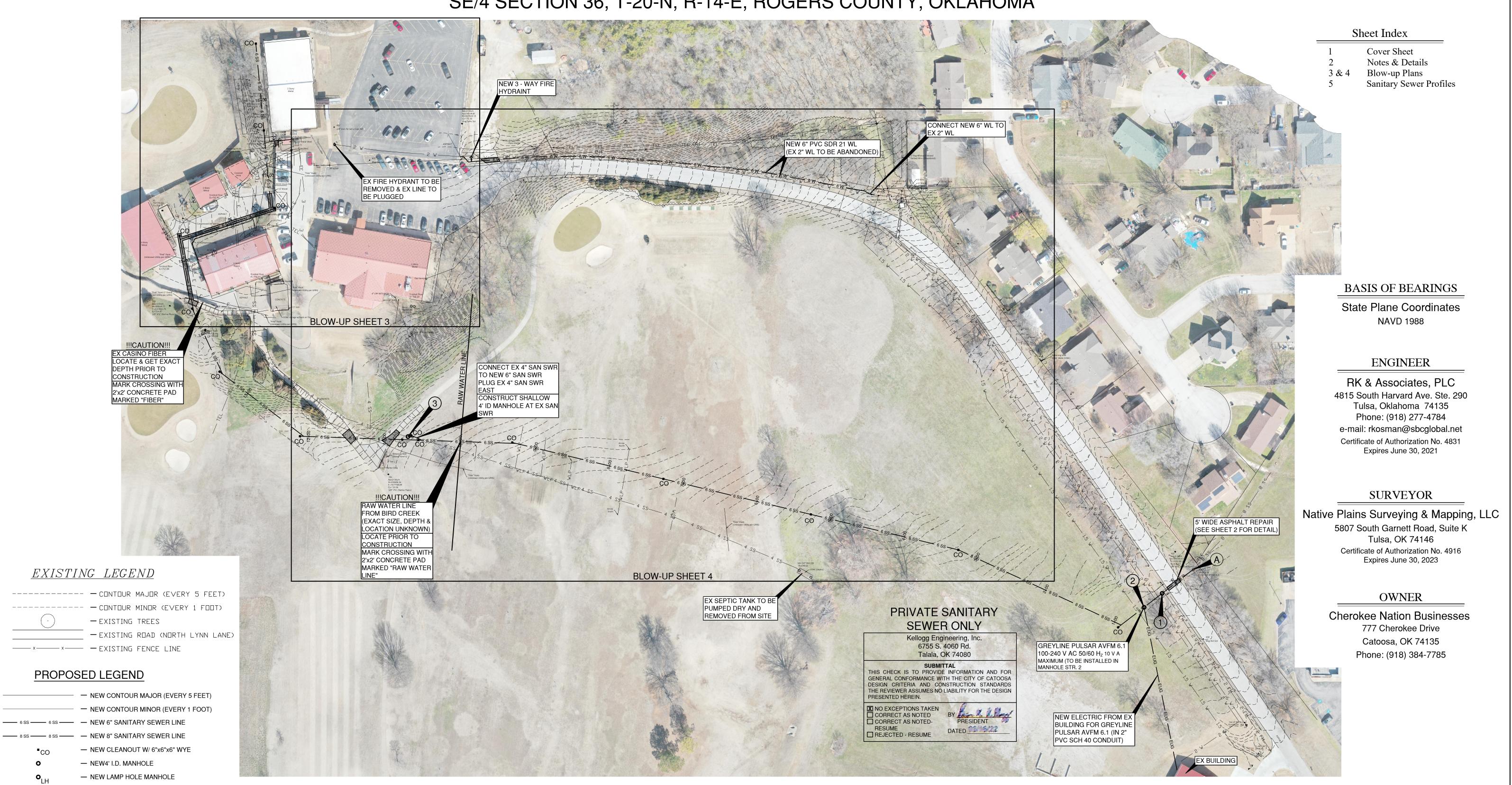
NEW PRIVATE 6" & 8" SANITARY SERVICE LINES NEW PRIVATE 6" WATER SERVICE LINE FOR ADMINISTRATION OFFICES





Location Map

SE/4 SECTION 36, T-20-N, R-14-E, ROGERS COUNTY, OKLAHOMA



811 BEFORE YOU DIG 1-800-522-6543 CALL OKIE	
	BEFORE YOU DIG

OWNER: Cherokee Nation Businesses (CNB)	REVISIONS	DATE	APPROVED	
LOCATIONS OF UNDERGROUND UTILITIES WERE OBTAINED FROM THE UTILITY OWNERS. BEFORE DOING ANY WORK WITH HEAVY EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNERS OR "CALL OKIE (OKLAHOMA ONE-CALL)" NOT LESS THAN 48 HOURS IN ADVANCE AND SHALL ESTABLISH THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES.				THIS DOCUMENT IS PRELIMINARY IN NATURE, AND IS NOT A FINAL SIGNED AND SEALED DOCUMENT.



RICHARD L. KOSMAN, PE. & ASSOCIATES PLC CIVIL ENGINEERING 4815 South Harvard Ave. Ste. 290 Tulsa, OK. 74135 Phone: 918(277-4784) Email: rkosman@sbcglobal.net

Certificate of Authority No. 4831

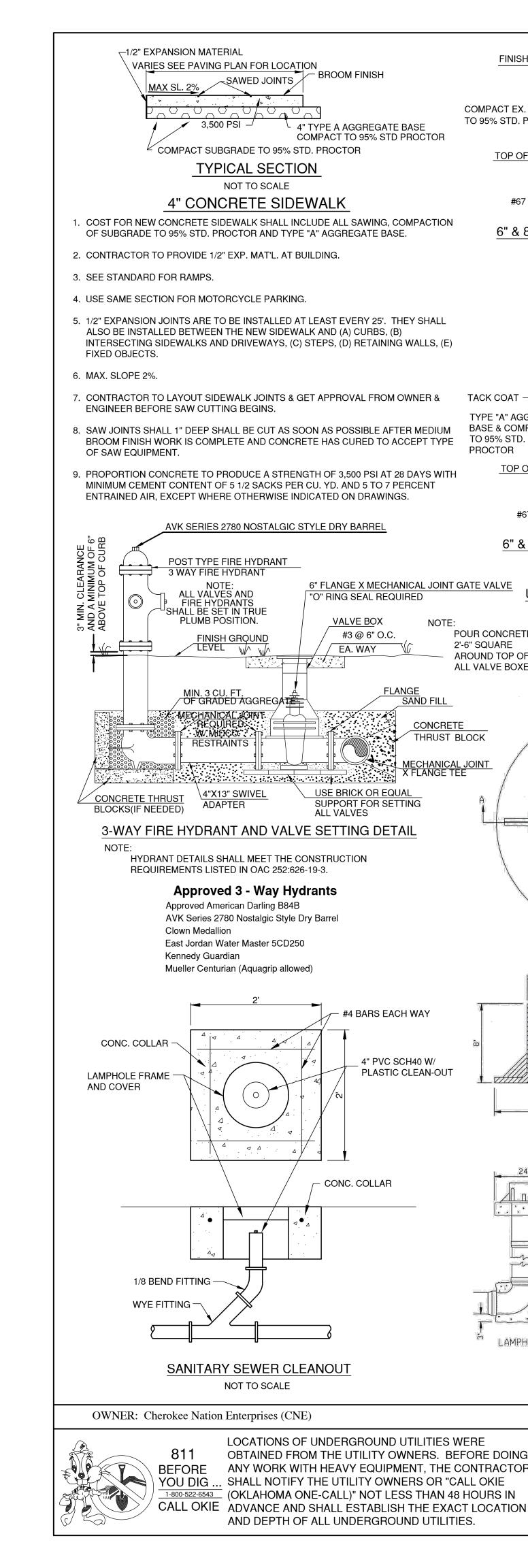
Expires June 30, 2023

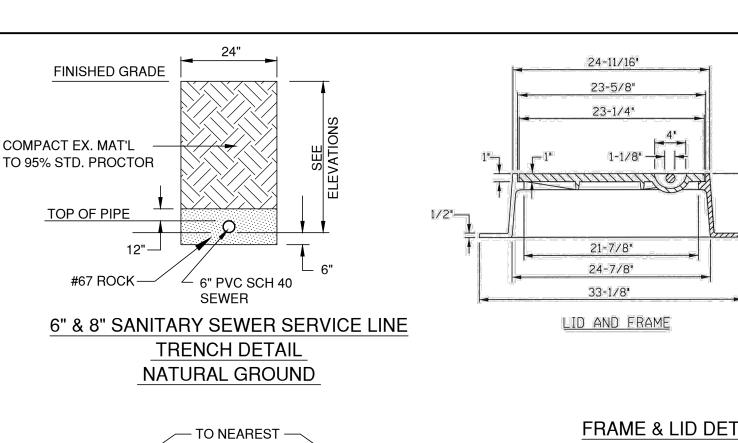
THESE PLANS AND DRAWINGS MAY NOT BE REPRODUCED, CHANGED OR COPIED, IN ANY WAY UNLESS FIRST OBTAINING THE EXPRESS WRITTEN CONSENT OF RK & ASSOCIATES, NOR SHALL THEY BE ASSIGNED TO ANY THIRD PARTY UNLESS SAID WRITTEN CONSENT IS FIRST OBTAINED. ANY CHANGES MADE TO THESE PLANS WITHOUT THE CONSENT OF RK & ASSOCIATES SHALL RELIEVE RK & ASSOCIATES OF RESPONSIBILITY FOR ANY CONSEQUENCES RESULTING FROM SUCH CHANGES

COVER SHEET

CHEROKEE NATION BUSINESSES (CNB)

DATE: 03/22/2023 SHEET 1 OF 5





(TYPE "C")

(2 @ 2" LIFTS)

JOINT AT SIDEWALK

← 6" PVC SCH 40

6" & 8" SANITARY SEWER SERVICE LINE

& 6" WATER LINE

TRENCH DETAIL

UNDER PAVEMENT & SIDEWALK

11-7/8" 19-1/4"

SECTION "A-A"

- 1/2" DIA

C 🚤

SECTION "B-B"

SECTION "C-C"

LIFTING EYE DETAIL

LAMPHOLE DETAILS

LAMPHOLE FRAME

CONCRETE

REVISIONS

LAMPHOLE

TACK COAT

TO 95% STD.

POUR CONCRETE

AROUND TOP OF

ALL VALVE BOXES

2'-6" SQUARE

CONCRETE

THRUST BLOCK

#3 @ 6" O.C.

- #4 BARS EACH WAY

4" PVC SCH40 W/

PLASTIC CLEAN-OUT

EA. WAY

TYPE "A" AGGREGATE

12"-

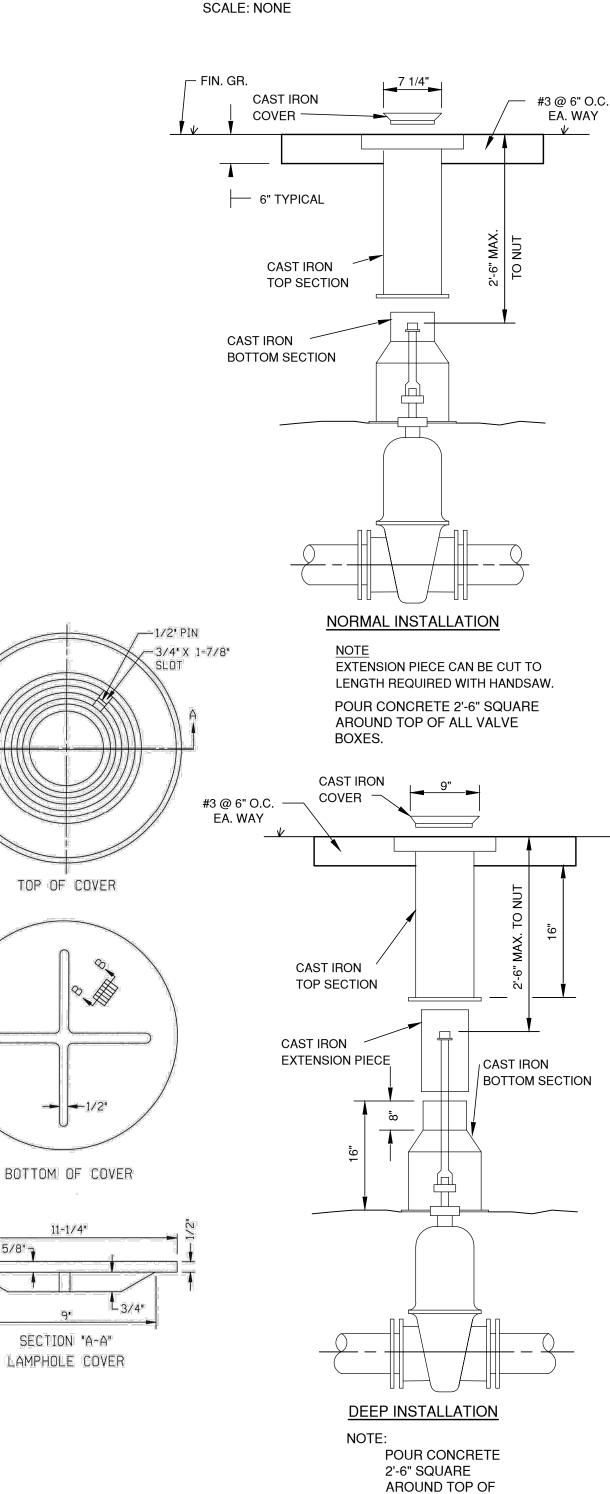
BASE & COMPACTED

1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE. 2. BACK SIDE OF COVER READS: MADE IN USA AASHTO A48 35B JULIAN HEAT DATE

BOTTOM REINFORCEMENT CONFIGURATION MAY VARY ACCORDING TO MANUFACTURER, HOWEVER, ALL LIDS AND FRAMES SHALL CONFORM TO AND BE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR GRAY IRON CASTINGS, ASTM A48, AND DRAINAGE STRUCTURE CASTINGS, AASHTO DESIGNATION: M306-89.

ALL LIDS AND FRAME SHALL MEET THE PROOF LOAD TEST AS SPECIFIED IN AASHTO DESIGNATION: M306-89. REPRESENTING A 2.5 SAFETY FACTOR OVER H-20 AND HS-20 LOADING.

FRAME & LID DETAIL FOR 4' I.D. MH



UTILITY NOTES:

- 1. THE LOCATION AND /OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES. AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE AND EXCAVATION BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF EXISTING UTILITIES.
- 2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES BEFORE CONNECTING TO ANY EXISTING LINES. CONTRACTOR SHALL COORDINATE AND SCHEDULE TIE-INS/CONNECTIONS WITH ALL UTILITY COMPANIES/OWNERS.
- 3. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND /OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
- 4. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON THE
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CITY OF CATOOSA FEES.

8" TO 12" PIPE = M.H. 4' I.D.

24" TO 36" PIPE = SPECIAL M.H.

15" TO 21" PIPE = M.H. 5' I.D.

STEPS SPACED

SECTION A-A

FOR ECCENTRIC TAPER M.H.

BE PLACED AND VIBRATED IN ONE FOOT LIFTS.

TOP VIEW

- 6" OF 1" TO #4 COMPACTED

STAGE CONSTRUCTION

4' I.D. MANHOLE DETAILS

(ALTERNATE 2)

1. CAST IN PLACE MANHOLES SHALL HAVE ECCENTRIC ENTRANCES AND SHALL BE EITHER THE

3. LOW SLUMP CONCRETE SHALL BE PLACED IN THE FOOTINGS AND LOWER WALLS AND SHALL

4. AN INSPECTOR MUST BE PRESENT BEFORE AND DURING THE PLACEMENT OF THE CONCRETE.

FLAT SLAB OR ECCENTRIC TAPER TYPE SUBJECT TO THE SPECIFIED RESTRICTIONS.

2. STEP DETAILS SHALL BE AS SHOWN ON THE STANDARD DETAIL FOR MANHOLE STEPS

5. THIS MANHOLE SHALL NOT BE USED IN PAVED STREETS OR OTHER TRAVELED AREAS.

7. (ALTERNATE 3) INVERT MUST BE FORMED AT TIME OF BOTTOM POUR.

6. THE CONCRETE MUST SET FOR 48 HOURS BEFORE PIPE INSIDE OF MANHOLE IS TRIMMED.

8. WATER STOPS MAY BE ELIMINATED IF BARREL OF MANHOLE IS POURED WITHIN 4 HOURS

AFTER BASE IS POURED AND PROVIDED BASE IS CLEANED OF ALL MUD, SILT AND DEBRIS.

9. THE TOP STEP SHALL NOT BE MORE THAN 27 INCHES AND NOT LESS THAN 18 INCHES FROM

Certificate of Authority No. 4831

Expires June 30, 2023

CRUSHED STONE (TYP.)

- 6. CONTRACTOR SHALL PROVIDE ALL CONDUITS NECESSARY AS SHOWN ON THE PLANS. VERIFY LOCATION OF UTILITY TIE IN AND PROVIDE NYLON PULL CORDS INSIDE CONDUITS.
- 7. CONTRACTOR SHALL KEEP A DAILY AS-BUILT DRAWING ALONG WITH **PICTURES** OF ALL OF THE UNDERGROUND UTILITIES PRIOR TO BACKFILLING. PICTURES SHALL BE GIVEN TO ENGINEER, ARCHITECT AND OWNER'S REPRESENTATIVE ON A MONTHLY BASIS

SITE NOTES:

FOR 4' AND 5' MANHOLE:

IF "B" IS LESS THAN 7'-0"

A=2'-6" MIN. TO 4'-0" MAX.

A=3'-6" MIN. TO 4'-0" MAX.

C=24"

LINE OF EXCAVATION

FILL EXCESS WITH

INLET FOR-

DROP MANHOLE

INLET FOR STANDARD MANHOLE

UNDISTURBED

UNDISTURBED

6" PVC

STAGE CONSTRUCTION

(ALTERNATE 1)

(STANDARD ND. 314).

THE TOP OF LID.

6" MIN. → | → /

USE FLAT SLAB TOP MANHOLE

- 1. THE WORK AND MATERIAL SHALL COMPLY WITH ALL CITY/COUNTY/STATE FEDERAL REGULATIONS CODES AND OSHA STANDARDS.
- 2. CONTRACTOR SHALL ENSURE ALL NECESSARY PERMITS ARE OBTAINED PRIOR TO CONSTRUCTION START.

PLASTERED WITH 1/4 GROUT.

SEE STANDARD NO.414

_ 4' OR

SECTION B-B
MONOLITHIC CONSTRUCTION

FOR ECCENTRIC TAPER M.H.

STAGE CONSTRUCTION

(ALTERNATE_3)

2" OR 4" REINFORCED CONCRETE

BE ACCOMPLISHED BY THE USE OF

CONCENTRIC RINGS OR BRICK AND

MORTAR AS FINISHED GRADE REQUIRES,

1/2" PER FT.

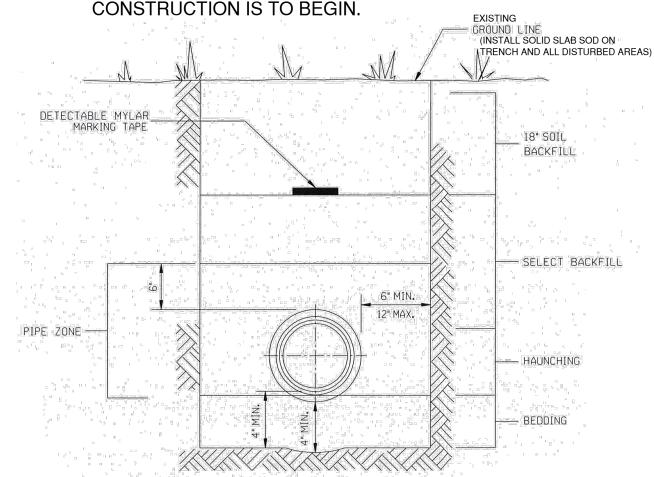
-#3 @ 6" C/C

GENERAL NOTES:

- 1. ALL PAVING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION CURRENT STANDARD SPECIFICATIONS & STANDARDS.
- 2. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA 'ONE-CALL SYSTEM INC'. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS OR LATER THAN 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS OR LEGAL HOLIDAYS), PRIOR TO COMMENCEMENT OF WORK. PHONE 1-800-522-6543.
- . THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE DRAWINGS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE DRAWINGS AND WE ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THEIR DEPICTED LOCATION ON THESE DRAWINGS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN, AND ALL OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE DRAWINGS BY VERIFICATION OF THEIR LOCATION IN THE FIELD PRIOR TO THE INITIATION OF THE ACTUAL PORTION OF THEIR WORK.
- 4. ALL CONSTRUCTION STAKING SHALL BE PERFORMED BY LICENSED SURVEYOR. ELECTRONIC DATA WILL BE MADE AVAILABLE TO THE SURVEYOR FOR HIS USE.
- 5. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH, AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTIONS ON HIS OWN RESPONSIBILITY OR AS THE ENGINEER MANY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF THE WORK COVERED BY THE CONTRACT. THE CONTRACTOR SHALL COMPLY WITH THE LATEST OSHA REGULATIONS.
- 6. ALL EXISTING TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN AN AREA APPROVED BY THE OWNER.
- 7. ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE OWNER.

CAUTION

CONTRACTOR IS TO VERIFY EXACT LOCATION AND DEPTH OF CASINO FIBER & RAW WATER LINE BEFORE ANY

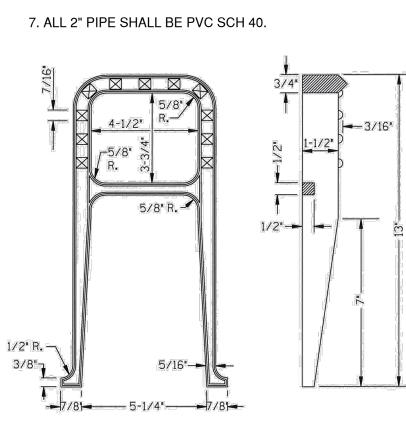


6" WATER LINE TRENCH CROSS - SECTION AT NATURAL GROUND

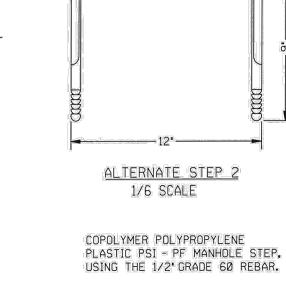
SCALE: NONE

1. BEDDING SHALL BE #67 ROCK.

- 2. SELECT BACKFILL SHALL BE IN ACCORDANCE WITH ODOT 703.01 AGGREGATE BASE TYPE A PLACED IN HORIZONTAL LIFTS NOT TO EXCEED 8 INCHES AND THE COMPACTED. INITIAL BACKFILL SHALL BE TO THE HAUNCH OF THE PIPE IN HORIZONTAL LIFTS NOT TO EXCEED 8 INCHES AND THE COMPACTED. COMPACTION PROCEDURE AND RESULTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
- 3. SOIL BACKFILL SHALL BE IN ACCORDANCE WITH ODOT 616.04.L BACKFILLING.
- 4. COMPACTION SHALL BE 95% STANDARD PROCTOR DENSITY PER AASHTO T-99.
- 5. 6" PIPE SHALL BE AWWA CLASS 200.
- 6. ALL 6" BENDS & FITTINGS SHALL BE D.I.P. AND WITH MEGALUGS RESTRAINTS.



1/4 SCALE



SEE STANDARD 366 - STANDARD DETAIL FOR MANHOLE STEP LOCATION AND INVERT DETAILS.

(REINFORCED STEEL, EPOXY OR RESILIENT COATED) 1/2" REINFORCING BAR MEETING ASTM DESIGNATION A15 ENCASED

STANDARD STEP THESE PLANS AND DRAWINGS MAY NOT BE

NOTES & DETAILS

CHEROKEE NATION ENTERPRISES (CNE)

IN NATURAL CORROSION-RESISTANT RUBBER OR EPOXY WITH A TRACTION

TREAD OF RESILIENT RUBBER OR EPOXY MEETING ASTM DESIGNATION C443.

RICHARD L. KOSMAN 11234

ALL VALVE BOXES.

VALVE BOX INSTALLATION

SCALE: NONE

APPROVED

DATE



RICHARD L. KOSMAN, PE. & ASSOCIATES PLC **CIVIL ENGINEERING** 4815 South Harvard Ave. Ste. 290 Tulsa, OK. 74135 Phone: 918(277-4784) Email: rkosman@sbcglobal.net

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CONSEQUENCES RESULTING FROM SUCH CHANGES

ASSOCIATES OF RESPONSIBILITY FOR ANY

SHEET 2 OF 5 DATE: 03/07/2023

