

THREE OAKS RECREATION AREA – SCUBA FACILITY

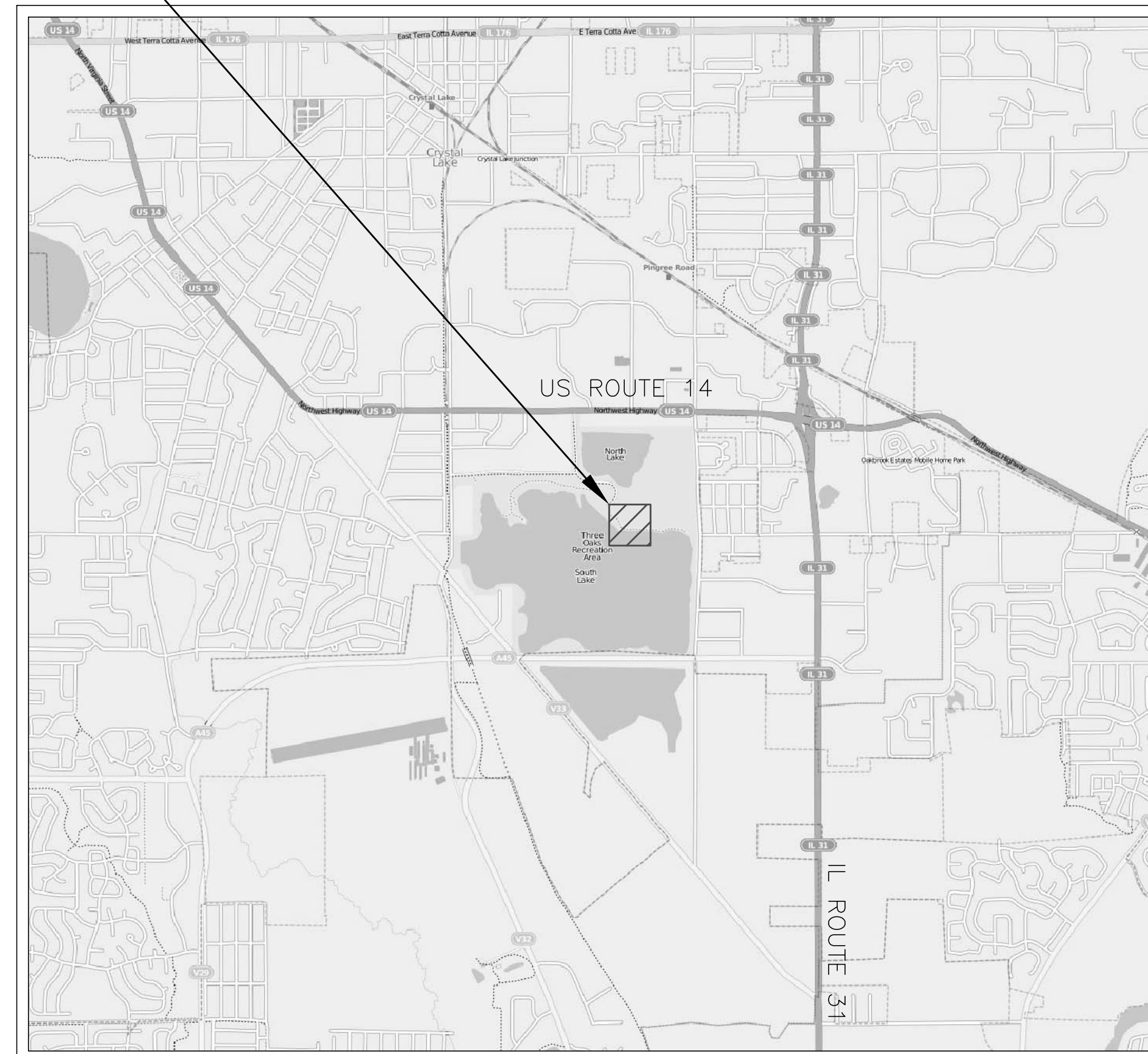
CITY OF CRYSTAL LAKE

CRYSTAL LAKE, ILLINOIS
FEBRUARY 5, 2012

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PROJECT LOCATION



LOCATION MAP
(NOT TO SCALE)



GARY A. BLAZEK
REGISTERED P.E. STATE OF ILLINOIS
SHEETS 1-13


11-30-2013

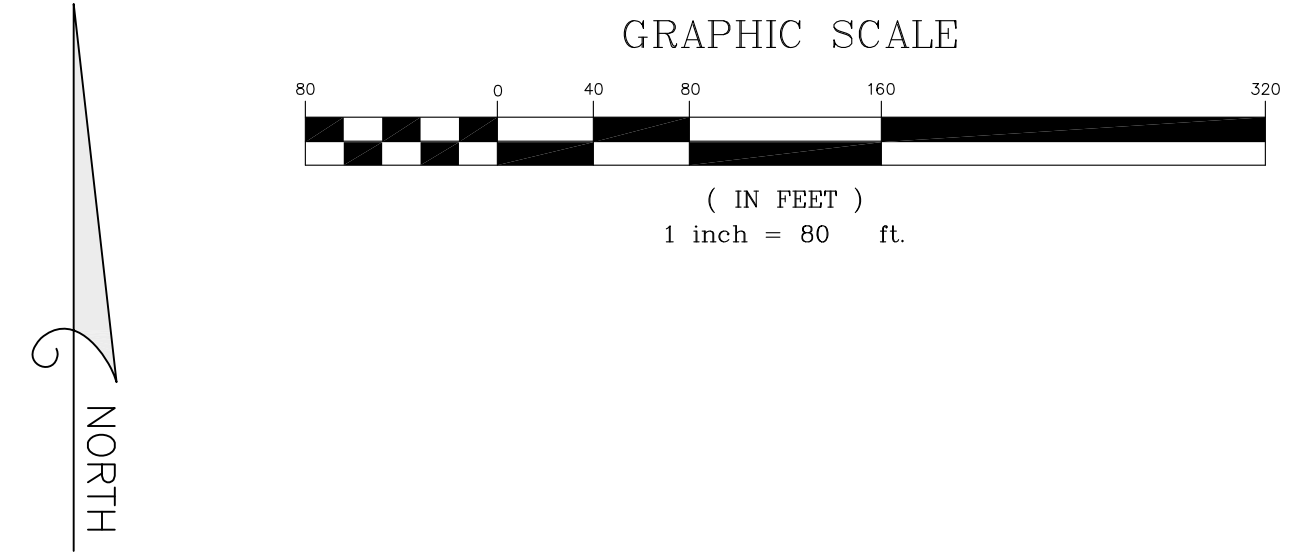
EXPIRATION DATE:



1-800-892-0123

THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, SHALL GOVERN THIS WORK.

SYM.	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	 500 Coventry Lane, Suite 290 Crystal Lake, Illinois 60014 Tel: 815.477.1915 - Fax: 815.477.1958 www.civiltechinc.com	
DTE	SCUBA TRAINING AREA THREE OAKS RECREATION AREA	
DRAWN BY:	TITLE PAGE & INDEX OF SHEETS CRYSTAL LAKE, IL	
DTE		
REVIEWED BY:		
GAB		
SUBMITTED BY:	SOL. NO.	DATE: 25 FEBRUARY 13
ENGINEER:	PROJECT NO. 2688	SEQUENCE NO.
	DRAWING NUMBER	SHEET NO. 1 OF 25
		C0.1



SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	SCUBA TRAINING AREA THREE OAKS RECREATION AREA OVERALL SITE PLAN CRYSTAL LAKE, IL			
DTE				
DRAWN BY:				
DTE				
REVIEWED BY:				
6AB				
SUBMITTED BY:	SOL. NO.	DATE: 25 FEBRUARY 13		SEQUENCE NO.
ENGINEER:	PROJECT NO. 2688	DRAWING NUMBER	SHEET NO. 2 OF 25	C11

GENERAL SITE WORK:

- PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED WITH CITY STAFF AND ALL CONTRACTORS PRIOR TO COMMENCING ANY GRADING OR UNDERGROUND UTILITY CONSTRUCTION ACTIVITIES (SCHEDULE MEETING WITH THE ENGINEERING DIVISION INSPECTION SERVICES COORDINATOR AT 815-356-3615).
- 24-HOUR EMERGENCY CONTACT NUMBERS SHALL BE PROVIDED TO CITY STAFF AT THE PRE-CONSTRUCTION MEETING.
- WORKING HOURS SHALL BE LIMITED TO BETWEEN THE HOURS OF 7:00 A.M. AND 7:00 P.M. ON WEEKDAYS ONLY (EXCEPT IN CASES OF EMERGENCY). NON-EMERGENCY WORK ON WEEKENDS OR HOLIDAYS IS NOT PERMITTED PER CITY CODE EXCEPT UNDER A SEPARATE PERMIT FROM THE CITY ENGINEER, LIMITED TO A PERIOD OF NOT MORE THAN THREE DAYS AND RENEWABLE ONLY ONCE.
- PUBLIC/PRIVATE STREETS AND PARKING LOTS SHALL BE KEPT FREE OF DIRT AND DEBRIS WITH REGULAR CLEANING, SWEEPING, AND SCRAPING CONDUCTED BY THE CONTRACTOR. JUNK AND DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE, BLOW, OR SCATTER ONTO STREETS OR ADJACENT PROPERTIES.
- J.U.L.I.E. SHALL BE CONTACTED FOR UTILITY LOCATIONS ON-SITE AND IN THE ADJACENT RIGHTS-OF-WAY.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN FENCING, BARRICADES, TRAFFIC CONTROL SIGNS, AND OTHER SAFEGUARDING MEASURES DURING THE COURSE OF ALL WORK TO PROTECT THE PUBLIC FROM THE CONSTRUCTION OPERATIONS.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (STANDARD SPECIFICATIONS), ADOPTED JANUARY 1, 2012; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2013; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"(MUTCD); "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS"(LATEST EDITION); THE DETAILS IN THE PLANS AND CITY OF CRYSTAL LAKE DETAILS.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

GRADING:

- THE GRADING AND CONSTRUCTION OF THE SITE IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM SEWER WATER. ALL AREAS ADJACENT TO THESE IMPROVEMENTS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE.
- THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADE. A MINIMUM OF SIX (6) INCHES OF TOPSOIL IS TO BE PLACED BEFORE FINISHED GRADE ELEVATIONS ARE ACHIEVED.
- EMBANKMENT MATERIAL WITHIN PARKWAY AND OPEN SPACE AREAS SHALL BE COMPACTED TO A MINIMUM OF NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-1557 (MODIFIED PROCTOR METHOD), OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOILS ENGINEER.
- ALL SUBGRADE MATERIAL SHALL HAVE A MINIMUM CBR (CALIFORNIA BEARING RATIO) OF 3.0 AS DETERMINED BY THE SOILS ENGINEER, OR BASE REPLACEMENT AND PAVEMENT DESIGN REVISIONS SHALL BE PROVIDED WHICH ARE ADEQUATE TO OBTAIN EQUIVALENT PAVEMENT STRENGTH.
- PROPOSED PAVEMENT AREAS, BUILDING PADS, DRIVEWAYS AND SIDEWALKS AND YARD/OPEN SPACE AREAS SHALL BE EXCAVATED OR FILLED TO PLUS OR MINUS 0.1 FOOT OF DESIGN SUBGRADE ELEVATIONS BY THE CONTRACTOR.
- USE OF CITY FIRE HYDRANTS IS NOT ALLOWED UNLESS APPROVED (SEPARATE FROM THIS PERMIT) BY THE PUBLIC WORKS DEPARTMENT AND A HYDRANT METER AND RPZ IS OBTAINED FROM THE CITY OF CRYSTAL LAKE WATER DIVISION. ONLY THE CITY OF CRYSTAL LAKE WATER DIVISION MAY OPERATE VALVES AND HYDRANTS.
- ANY EXISTING PLANTINGS THAT REQUIRE RELOCATION DUE TO PROPOSED CONSTRUCTION SHALL BE REPLANTED AT THE DIRECTION OF THE CITY ENGINEER.

TOPSOIL STOCKPILING:

- LOCATION OF ANY ON-SITE TOPSOIL STOCKPILES SHALL BE IDENTIFIED ON THE APPROVED PLANS WITH SILT FENCE INSTALLED AROUND THE PERIMETER OF THE STOCKPILE.
- TOPSOIL STOCKPILED FOR FUTURE USE SHALL BE RELATIVELY FREE FROM LARGE ROOTS, STICKS, WEEDS, BRUSH, STONES LARGER THAN ONE (1) INCH DIAMETER, OR OTHER LITTER AND WASTE PRODUCTS INCLUDING OTHER EXTRANEIOUS MATERIALS NOT CONDUCIVE TO PLANT GROWTH.
- TOPSOIL SHALL BE STOCKPILED IN SEQUENCE TO ELIMINATE ANY RE-HANDLING OR DOUBLE MOVEMENTS BY THE CONTRACTOR. FAILURE TO PROPERLY SEQUENCE THE STOCKPILING OPERATIONS SHALL NOT CONSTITUTE A CLAIM FOR ADDITIONAL COMPENSATION. NO MATERIAL SHALL BE STOCKPILED IN FRONT YARDS, IN UTILITY EASEMENTS, OR IN THE RIGHT-OF-WAY LINES.

UNDERGROUND UTILITY:

- THE CONTRACTOR SHALL COORDINATE WATER MAIN, WATER SERVICE, SANITARY AND STORM SEWER INSPECTIONS AND TESTING WITH THE CITY ENGINEERING AND BUILDING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE.
- REFERENCE THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.
- CONTRACTORS SHALL CONNECT WATER SERVICE TO EXISTING MAIN WITHIN BOATHOUSE IN ACCORDANCE WITH THE ILLINOIS PLUMBING CODE. THIS WORK SHALL BE COMPLETED BY AN ILLINOIS LICENSED PLUMBER.
- ALL WATER MAINS SHALL BE SUBJECTED TO A PRESSURE TEST AND A SEPARATE LEAKAGE TEST AT SYSTEM PRESSURE FOR 24 HOURS BY THE CONTRACTOR. HYDROSTATIC PRESSURE TEST AND LEAKAGE SHALL BE BASED ON 125 PSI FOR TWO (2) HOURS. WATER MAINS SHALL BE CHLORINATED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
- THE UNDERGROUND CONTRACTOR SHALL CONSIDER INCIDENTAL TO THE CONTRACT ANY CHLORINATION AND TESTING OF EXISTING WATER MAIN WHERE CONNECTIONS TO AND CONCLUSION OF SUCH MAINS IS INDICATED ON THE DRAWINGS. IN THE EVENT THAT THE PRESSURE ATTRIBUTABLE TO DEFECTIVE ORIGINAL WORKMANSHIP AND MATERIAL, THEN THE CONTRACTOR SHALL BE ENTITLED TO ADDITIONAL PAYMENT FOR CORRECTING THE DEFICIENCIES.

EROSION CONTROL:

- ALL SPECIFIED EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED PER THE REQUIREMENTS OF THE CRYSTAL LAKE STORMWATER ORDINANCE IN ACCORDANCE WITH THE ACTIVE NPDES PERMIT.
- ALL SLOPES 4:1 OR STEEPER SHALL BE SODDED OR BLANKETED IMMEDIATELY AFTER MASS EARTHWORK.
- ALL OVERLAND FLOW ROUTES TO BE STABILIZED BY SOD OR BLANKET.
- EROSION CONTROL MEASURES TO BE INSPECTED AND APPROVED BY CITY ENGINEERING DIVISION PRIOR TO ADDITIONAL WORK ON SITE.
- CONTINUOUS MONITORING OF EROSION CONTROL MEASURES IS REQUIRED. MAINTAIN RECORDS OF WEEKLY REPORTS PER THE CITY OF CRYSTAL LAKE STORMWATER ORDINANCE.
- THE CONTRACTOR SHALL IMPLEMENT ANY ADDITIONAL EROSION CONTROL MEASURES DEEMED NECESSARY BY THE CITY PER THE STANDARDS OF THE CITY OF CRYSTAL LAKE STORMWATER ORDINANCE.

PAVING:

- ALL SUBGRADES AND BASES SHALL BE PROOF-ROLLED AND APPROVED BY THE ENGINEERING DIVISION PRIOR TO BASE OR BINDER INSTALLATION.
- SUBGRADE AND PROPOSED PAVEMENTS SHALL BE FINISHED BY THE EXCAVATION CONTRACTOR TO WITHIN 0.1 FOOT PLUS OR MINUS, OF PLAN ELEVATION.
- THE PAVING CONTRACTOR SHALL ENSURE THAT THE SUBGRADE HAS BEEN PROPERLY PREPARED AND THAT THE FINISHED TOP OF SUBGRADE ELEVATION HAS BEEN GRADED WITHIN THE TOLERANCES ALLOWED IN THESE SPECIFICATIONS. UNLESS THE PAVING CONTRACTOR ADVISES THE OWNER AND ENGINEER IN WRITING PRIOR TO FINE GRADING FOR BASE COURSE CONSTRUCTION, IT IS UNDERSTOOD THAT THE CONTRACTOR HAS APPROVED AND ACCEPTS RESPONSIBILITY FOR THE SUBGRADE.
- FOR THE PURPOSE OF PROVIDING HANDICAP ACCESSIBILITY AND COMPLYING WITH THE AMERICAN DISABILITY ACT AND CITY STANDARDS, CURBS SHALL BE DEPRESSED AT LOCATIONS WHERE PUBLIC WALKS OR PEDESTRIAN PATHS INTERSECT CURB LINES AT STREET INTERSECTIONS AND OTHER LOCATIONS AS DIRECTED.
- SIDEWALKS (WHERE REQUIRED) SHALL BE OF THE THICKNESS AND DIMENSIONS AS SHOWN IN THE CONSTRUCTION PLANS. ALL SIDEWALK CONCRETE SHALL BE A MINIMUM OF 6.1 BAG MIX (OR IDOT CLASS SI CONCRETE) AND SHALL DEVELOP A MINIMUM OF 3,500 PSI COMPRESSIVE STRENGTH AT TWENTY EIGHT (28) DAYS. ALL SIDEWALKS CONSTRUCTED OVER UTILITY TRENCHES AND/OR ABUTTING DRIVEWAY APRONS SHALL BE REINFORCED WITH THREE (3) NO. 4 REINFORCING BARS (10 FOOT MINIMUM LENGTH).

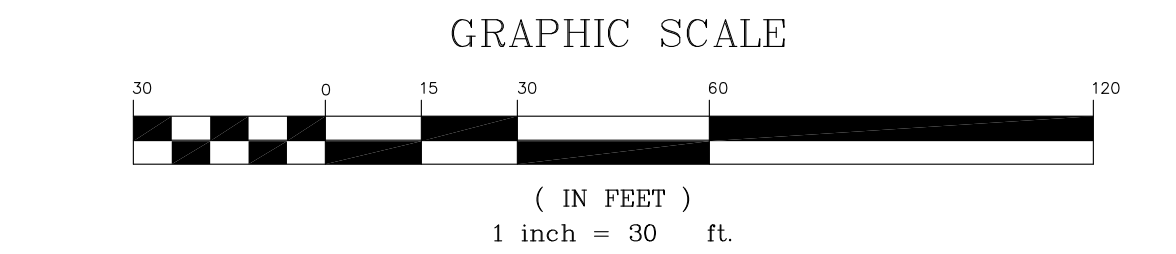
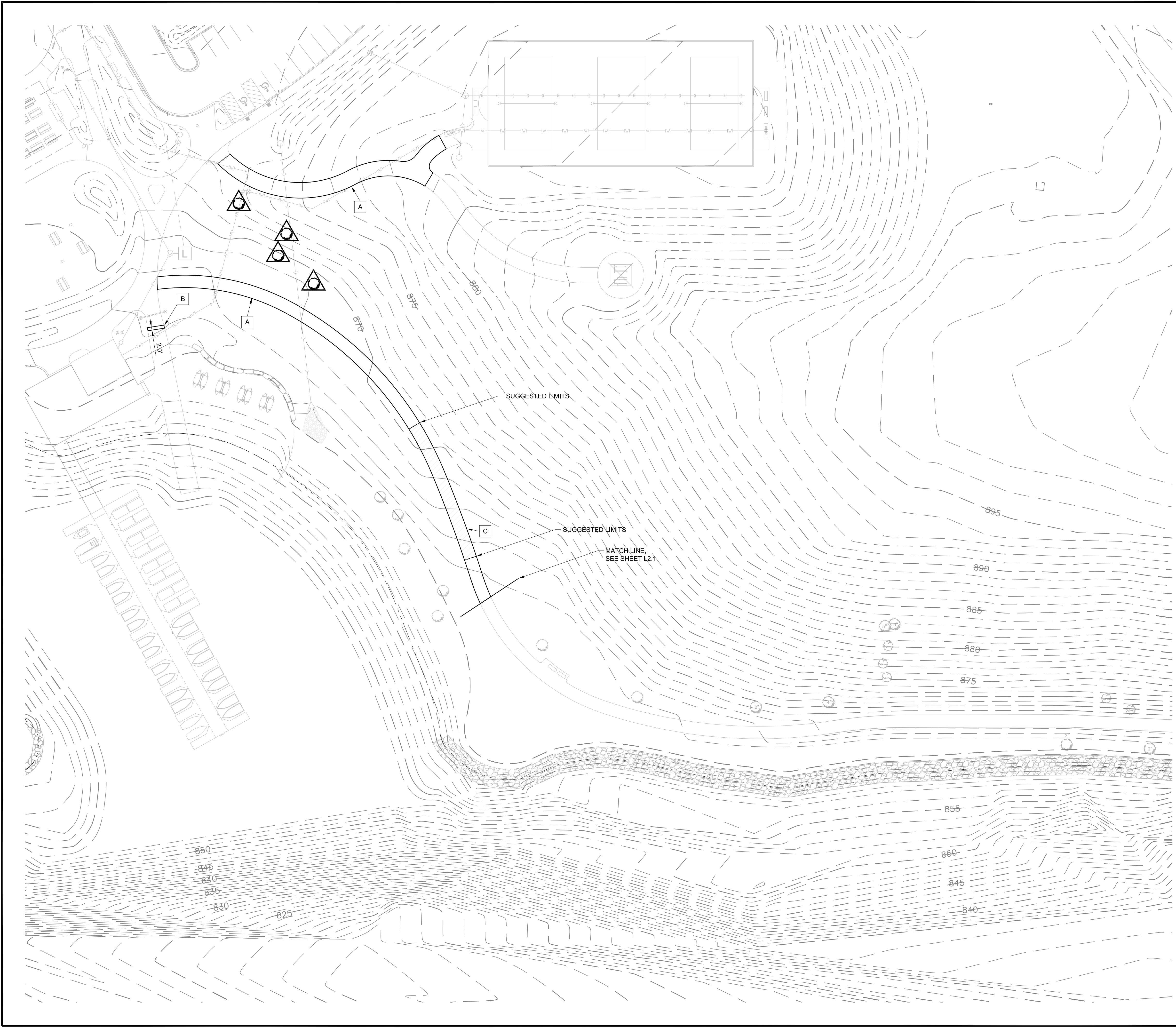
SURVEILLANCE CAMERA SPECIFICATIONS:

- TWO (2) POLE MOUNTED SURVEILLANCE CAMERAS CONSISTING OF THE FOLLOWING:
 - ONE (1) 5.0 MEGAPIXEL IP ARECONT VISION/AV 5105 DN CAMERA WITH INFRARED ILLUMINATOR AND HEATER BLOWER (VIEWING SCUBA DOCK).
 - ONE (1) 5.0 MEGAPIXEL IP ARECONT VISION/AV 5105 DN CAMERA WITH INFRARED ILLUMINATOR AND HEATER BLOWER (VIEWING THE EMERGENCY CALL BUTTON).
 - SYSTIMAX 6-STRAND SINGLEMODE FIBER OPTIC BACKBONE CABLE (OR EQUAL) FROM BOAT HOUSE EQUIPMENT RACK TO THE CAMERAS.
 - ONE (1) RUGGEDIZED 4-PORT 10/100 PoE SWITCH.
 - ALL CABLE TERMINATORS/TESTING, ENCLOSURES, CAMERA SYSTEM PROGRAMMING/CONFIGURATIONS, AND MISCELLANEOUS MATERIALS
 - ON-NET SURVEILLANCE SYSTEM, INC (ON SSI) CAMERA SERVER LICENSE. AFTER LICENSE IS OBTAINED, CONTRACTOR SHALL ENSURE CAMERA IS DISPLAYED AND FUNCTIONAL ON ALL CITY MONITORS.
- ONE (1) POLE MOUNTED CALL BUTTON CONSISTING OF THE FOLLOWING:
 - ONE (1) WEATHERPROOF EMERGENCY CALL BUTTON STATION.
 - SYSTIMAX CATEGORY 6 BACKBONE CABLE FROM BOAT HOUSE TO NEW LIGHT POLE.
 - ALL CABLE TERMINATIONS/TESTING, BACK BOX, LIGHTNING PROTECTION, CROSS-CONNECTIONS, AND MISCELLANEOUS MATERIALS.
- CONTRACTOR SHALL TRAIN CITY STAFF ON OPERATION OF CAMERAS AND CALL BUTTON.
- EQUIPMENT AND SUPPLIES SHALL HAVE A ONE-YEAR WARRANTY FROM THE DATE OF ACCEPTANCE BY THE CITY.
- CALL BUTTON SHALL BE MOUNTED ON SEPARATE PIPE BOLLARD WITHIN FENCED AREA OF SCUBA DOCK TO BE VERIFIED AND LOCATED IN THE FIELD BY OWNER.

L-SERIES SHEETS GENERAL NOTES:

- BASEMAP INFORMATION OBTAINED FROM PLANS PREPARED BY MANHARD CONSULTING RECEIVED OCTOBER 19, 2012.
- VERIFY SITE CONDITIONS AND INFORMATION ON DRAWINGS. PROMPTLY REPORT ANY CONCEALED CONDITIONS, MISTAKES, DISCREPANCIES OR DEVIATIONS FROM THE INFORMATION SHOWN IN THE CONTRACT DOCUMENTS. THE OWNER IS NOT RESPONSIBLE FOR UNAUTHORIZED CHANGES OR EXTRA WORK REQUIRED TO CORRECT UNREPORTED DISCREPANCIES.
- SECURE AND PAY FOR PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THIS WORK. COMPLY WITH CODES APPLICABLE TO THIS WORK.
- REFER TO SPECIFICATIONS FOR ADDITIONAL CONDITIONS, STANDARDS AND NOTES.

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	SCUBA TRAINING AREA THREE OAKS RECREATION AREA GENERAL NOTES CRYSTAL LAKE, IL			
DTE				
DRAWN BY:				
DTE	REVIEWED BY:			
6AB				
SUBMITTED BY:		SOL. NO.	DATE: 25 FEBRUARY 13	
ENGINEER:		PROJECT NO. 2688	SEQUENCE NO.	
		DRAWING NUMBER	SHEET NO.	C12
			3 OF 25	

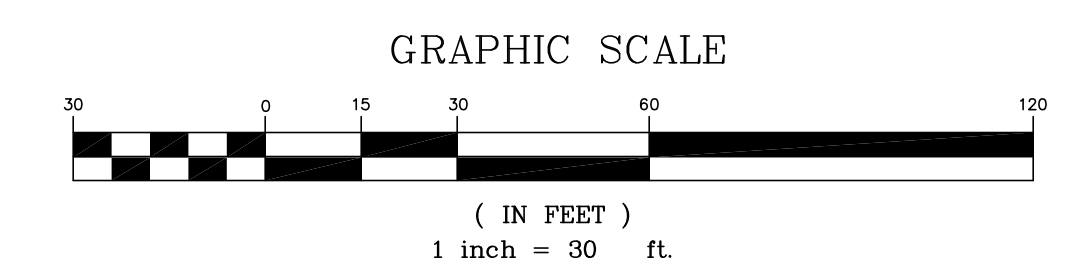
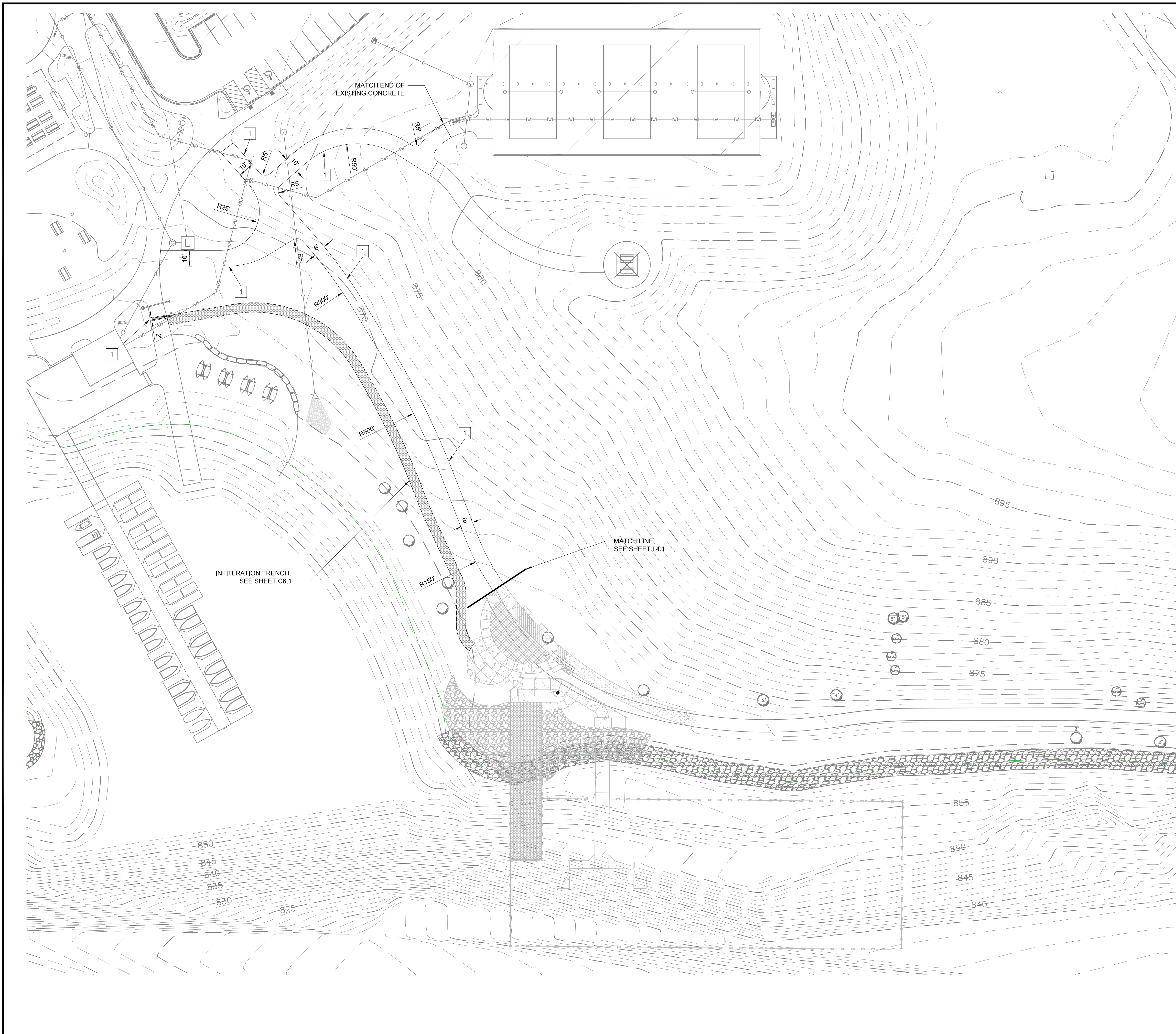


- LEGEND**
- - - - - EXISTING MINOR CONTOUR LINE
 - - - - - EXISTING MAJOR CONTOUR LINE
 - — — — — EXISTING STORM SEWER
 - — — — — EXISTING SANITARY SEWER
 - — — — — EXISTING WATER MAIN
 - — — — — EXISTING WATER MAIN
 - ⊙ EXISTING STORM MANHOLE
 - ⊙ EXISTING CATCH BASIN
 - EXISTING INLET
 - ⊙ EXISTING SANITARY MANHOLE
 - ⊗ EXISTING CORPORATION STOP
 - ⊗ EXISTING FIRE HYDRANT
 - ⊗ EXISTING GATE VALVE IN VAULT
 - ⊗ EXISTING SANITARY LIFT STATION
 - ⊙ EXISTING SANITARY MANHOLE
 - △ EXISTING FLARED END SECTION
 - △ TREE TO BE TRANSPLANTED

- KEYED NOTES**
- A** STONE PATH TO BE REMOVED
 - B** CONCRETE PATH TO BE REMOVED AT CONSTRUCTION JOINT
 - C** REMOVE SURFACE LIMESTONE SCREENINGS; AGGREGATE BASE COURSE TO REMAIN. (SEE NOTES 1&2)

- NOTES:**
1. AGGREGATE BASE COURSE TO REMAIN MUST BE RE-COMPACTED AND APPROVED BY CITY ENGINEER PRIOR TO BEING PAVED UPON.
 2. LIMESTONE SCREENINGS SHALL BE STOCKPILED AT AN APPROVED LOCATION BY THE CITY ENGINEER TO BE REUSED AT A LATER DATE.

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	SCUBA TRAINING AREA THREE OAKS RECREATION AREA SITE DEMOLITION PLAN CRYSTAL LAKE, IL			
DTE				
DRAWN BY:				
DTE				
REVIEWED BY:				
6AB	SUBMITTED BY:		SOL. NO.	DATE: 25 FEBRUARY 13
ENGINEER:	PROJECT NO. 2008		DRAWING NUMBER	SHEET NO. 4 OF 25
				SEQUENCE NO. C2.1

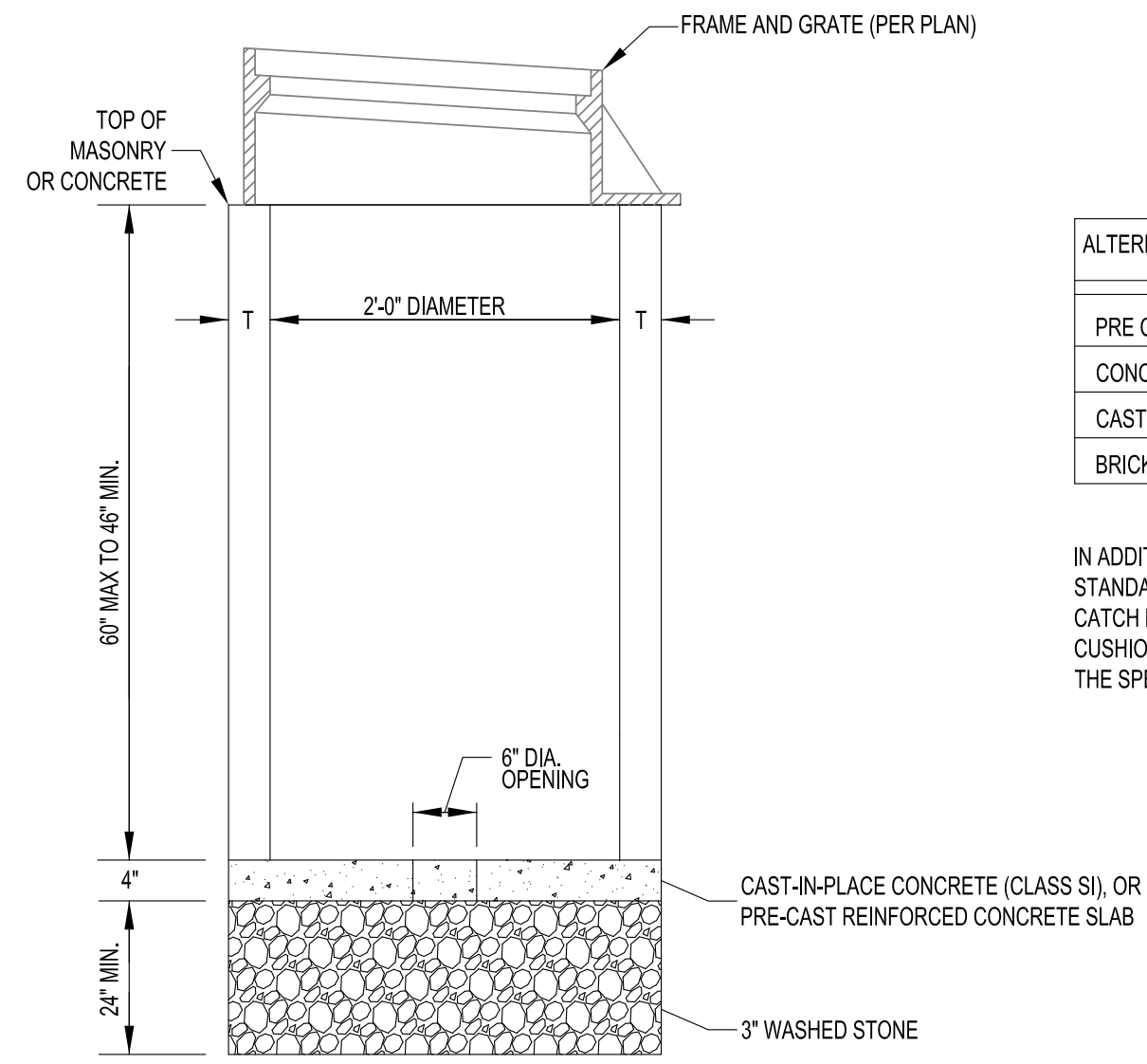


- LEGEND**
- - - 35.3 - - - EXISTING MINOR CONTOUR LINE
 - - - 35.5 - - - EXISTING MAJOR CONTOUR LINE
 - >— EXISTING STORM SEWER
 - +— EXISTING SANITARY SEWER
 - |— EXISTING WATER MAIN
 - +— EXISTING UNDERDRAIN
 - ⊙ EXISTING STORM MANHOLE
 - EXISTING CATCH BASIN
 - EXISTING INLET
 - ⊗ EXISTING SANITARY MANHOLE
 - ⊗ EXISTING CORPORATION STOP
 - ⊗ EXISTING FIRE HYDRANT
 - ⊗ EXISTING GATE VALVE IN VAULT
 - ⊗ EXISTING SANITARY LIFT STATION
 - ⊗ EXISTING SANITARY MANHOLE
 - △ EXISTING FLARED END SECTION

- KEYED NOTES**
- 1 CONCRETE PAVING - HEAVY DUTY, REF. DETAIL 2-L6.1

- NOTES:**
1. DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

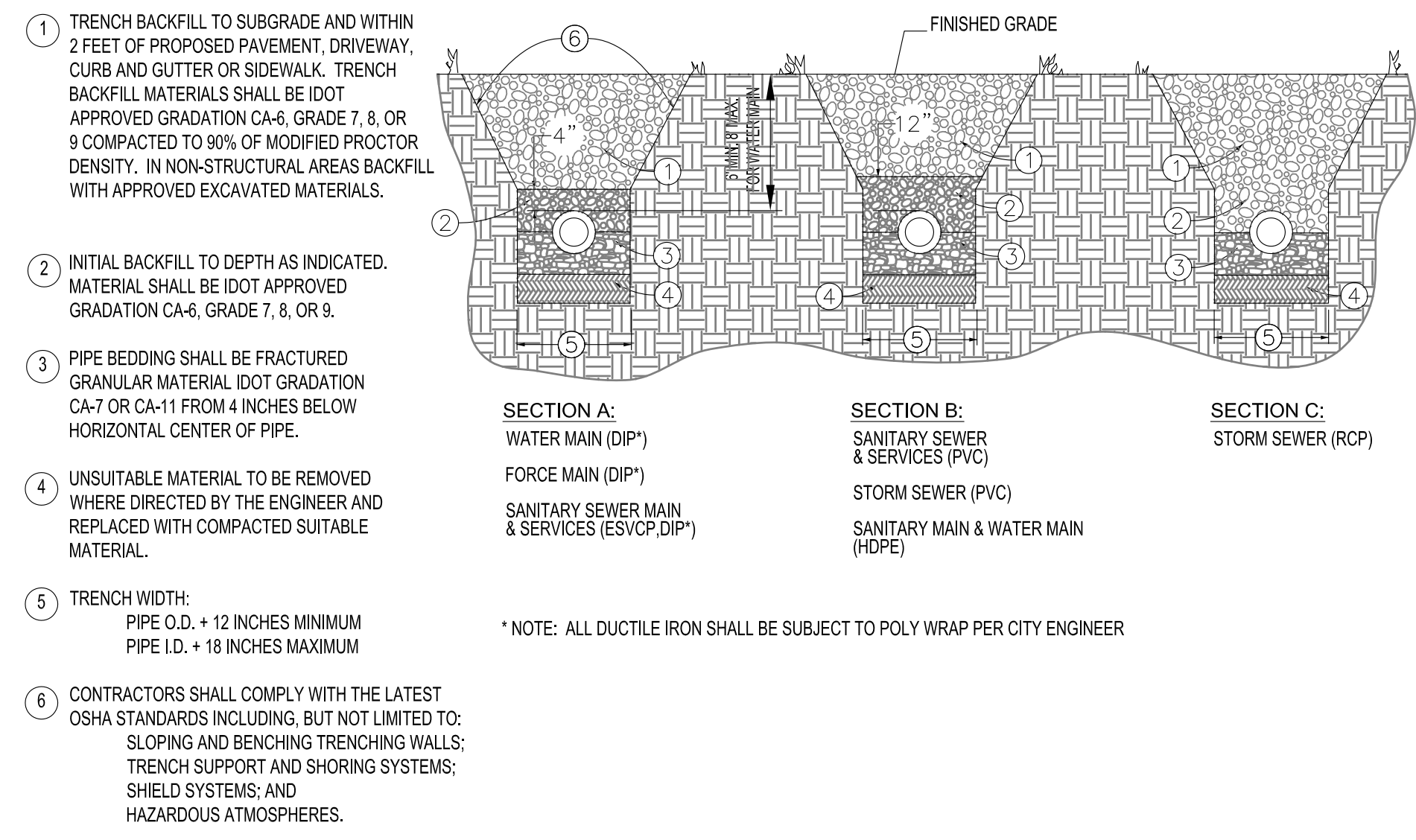
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<p>DESIGNED BY: DTE</p> <p>DRAWN BY: DTE</p> <p>REVIEWED BY: GAB</p> <p>SUBMITTED BY:</p>				
<p>SCUBA TRAINING AREA</p> <p>THREE OAKS RECREATION AREA</p> <p>SITE LAYOUT PLAN</p> <p>CRYSTAL LAKE, IL</p>				
SOL. NO.		DATE: 25 FEBRUARY 13		SEQUENCE NO.
PROJECT NO. 2608		DRAWING NUMBER		SHEET NO. 5 OF 25
ENGINEER:				C3.1



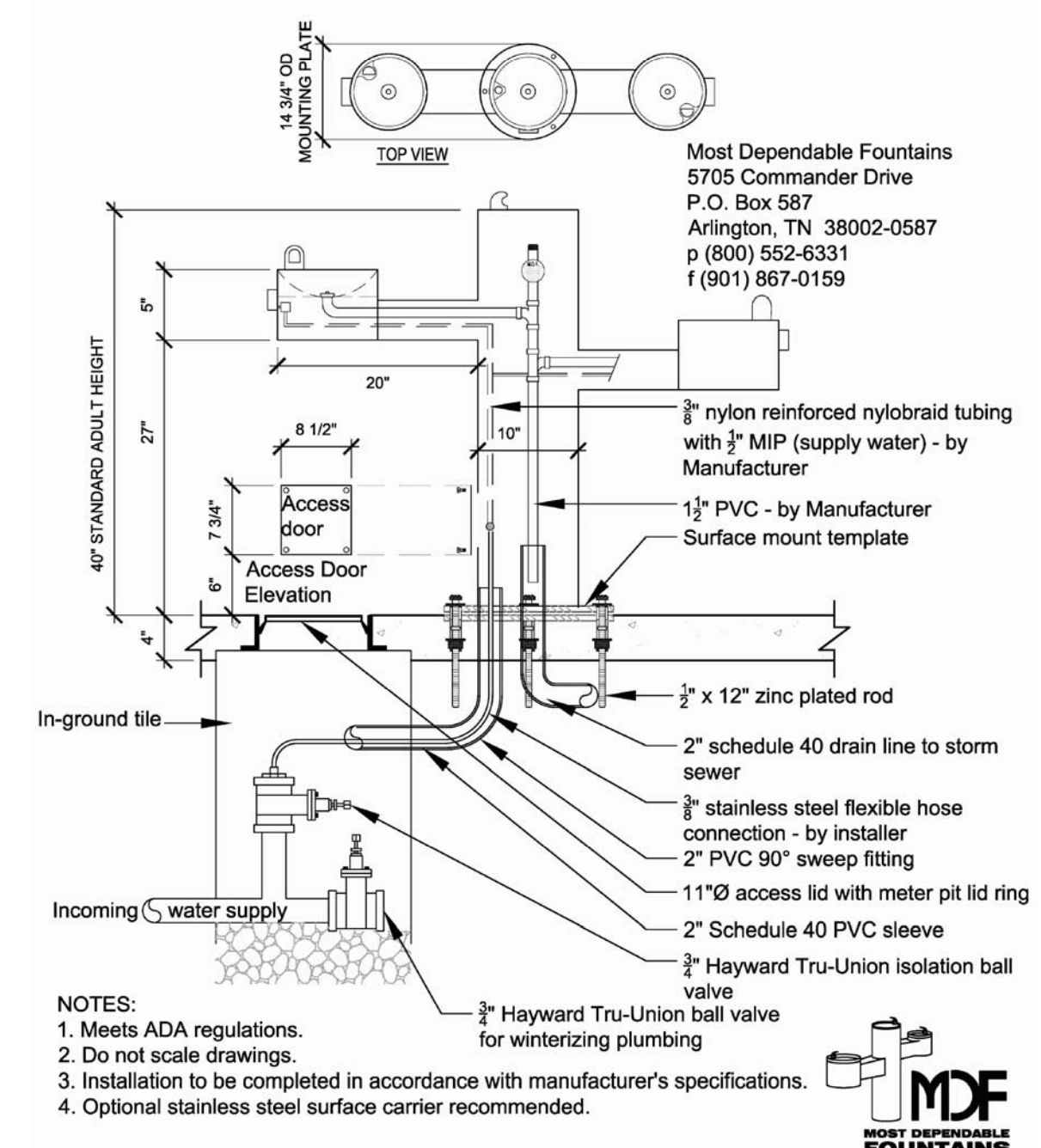
ALTERNATE MATERIALS FOR WALLS	T
PRE CAST REINFORCED CONCRETE SECTIONS	3"
CONCRETE MASONRY UNITS	5"
CAST-IN-PLACE CONCRETE	6"
BRICK MASONRY	8"

IN ADDITION TO THE REQUIREMENTS OF ART. 602.16 OF THE STANDARD SPECIFICATIONS THE CONTRACT UNIT PRICE FOR CATCH BASINS, TYPE A SHALL INCLUDE THE CA-7 OR 11 CUSHION WHEN REQUIRED, FURNISHING AND COMPACTING THE SPECIFIED BACKFILL MATERIAL.

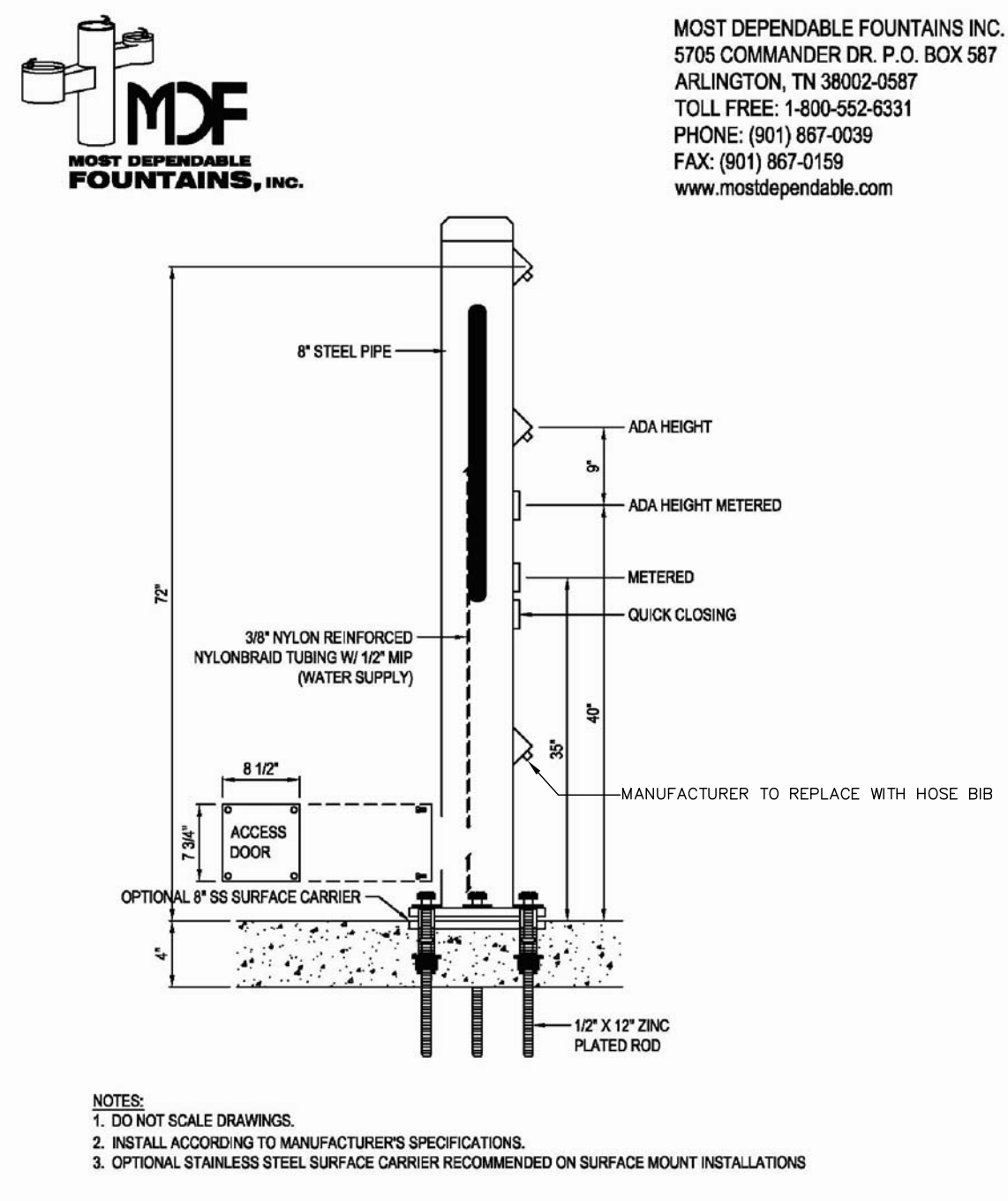
1 CATCH BASIN, TYPE C WITH OPEN BOTTOM
C6.1 | C4.1 NOT TO SCALE



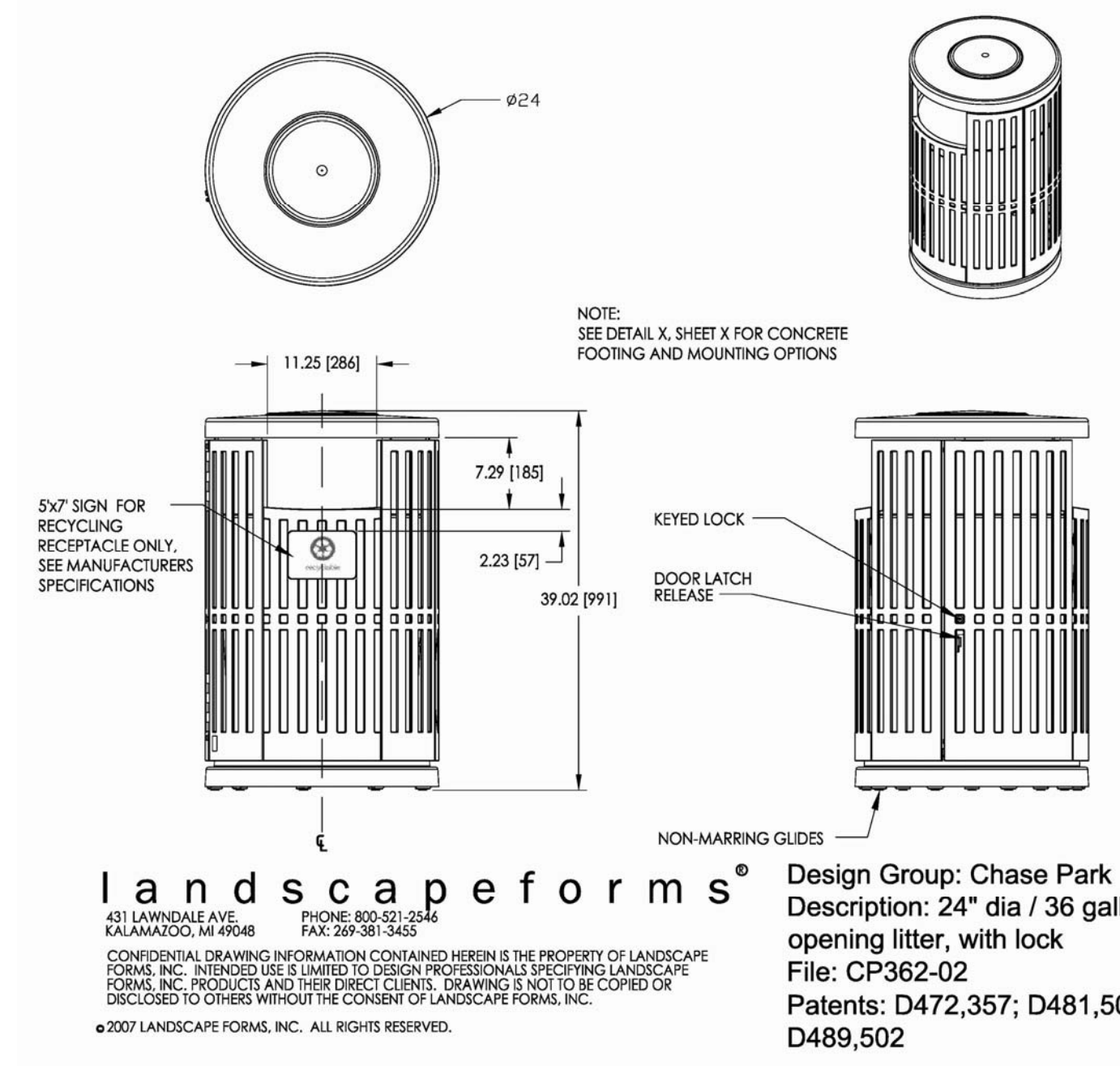
2 TYPICAL TRENCH CROSS SECTION
C6.1 | C4.1 NOT TO SCALE



3 DRINKING FOUNTAIN
C6.1 | C4.1 NOT TO SCALE

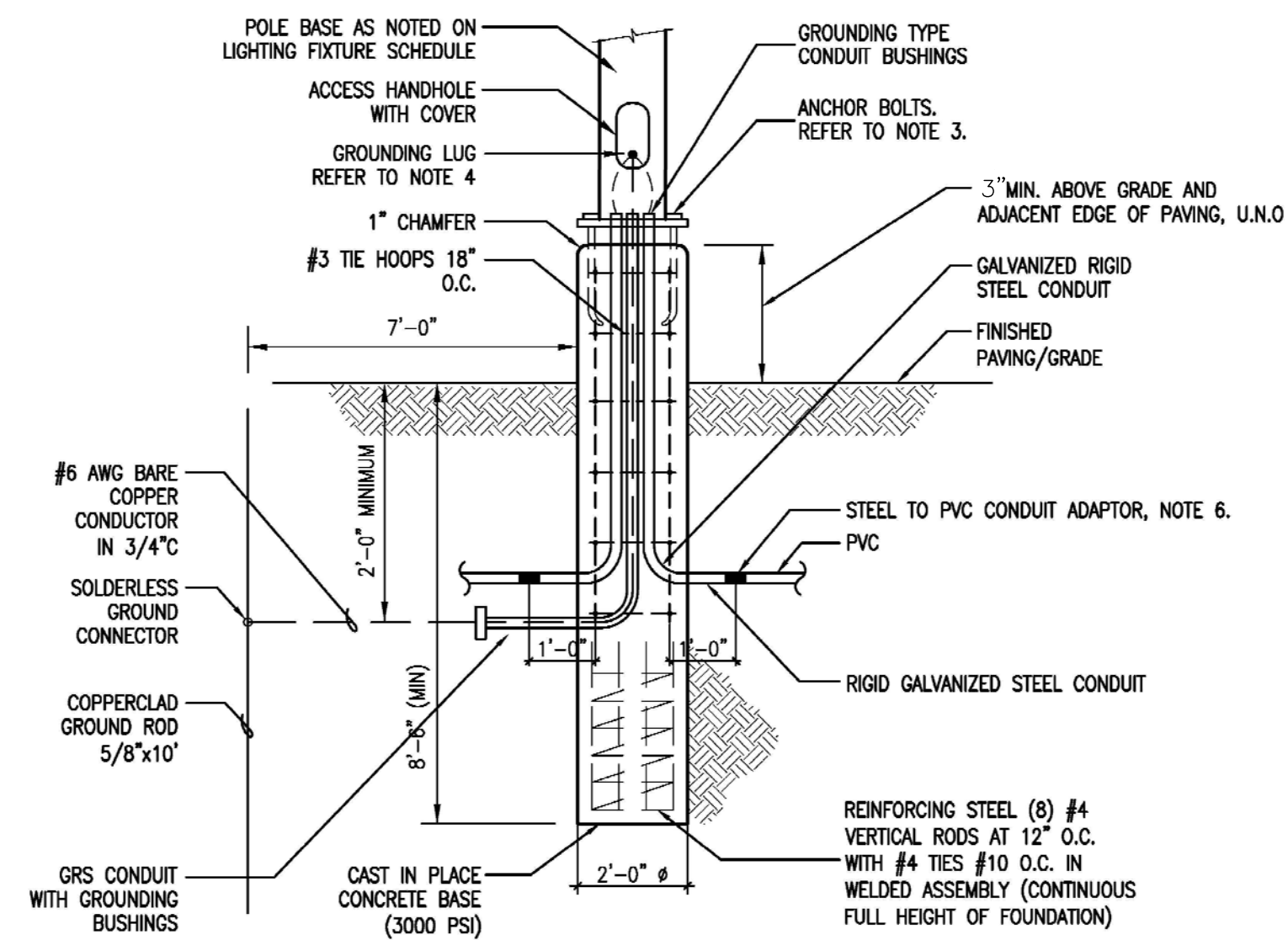


4 OUTDOOR SHOWER
C6.1 | C4.1 NOT TO SCALE



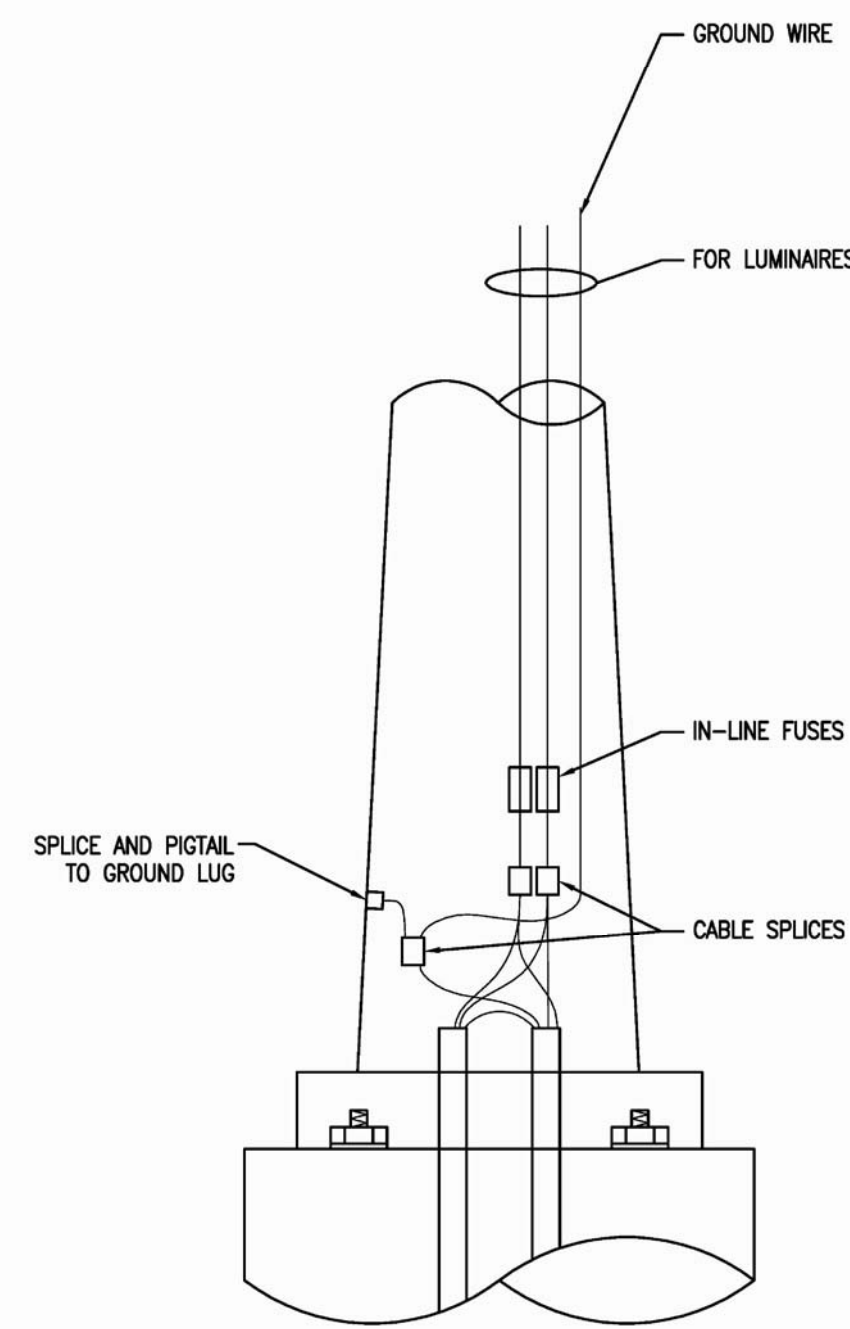
5 REFUSE CONTAINERS
L4.1 | C4.1 NOT TO SCALE

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
DESIGNED BY:	SCUBA TRAINING AREA THREE OAKS RECREATION AREA SITE DETAILS CRYSTAL LAKE, IL			
DTE				
DRAWN BY:				
DTE				
REVIEWED BY:				
6AB	SUBMITTED BY:			
ENGINEER:		SOL. NO.	DATE: 25 FEBRUARY 13	
		PROJECT NO. 2000	SEQUENCE NO.	
		DRAWING NUMBER	SHEET NO.	C4.1
			6 OF 25	

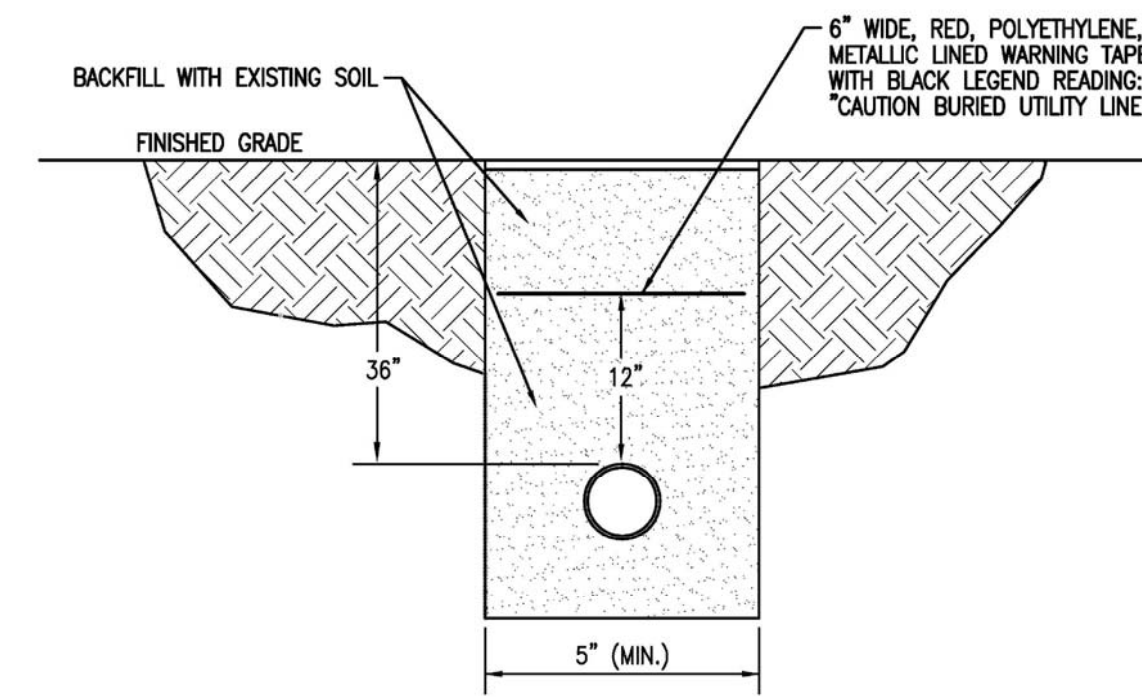


- NOTES:
1. TIE TOGETHER ALL GROUNDING CONDUCTORS INCLUDING CONDUCTORS INSTALLED WITH THE CIRCUIT WIRING.
 2. WELD ALL STEEL, ANCHOR BOLT AND CONDUIT TOGETHER VIA #6 GROUNDING CONDUCTOR. USE EXOTHERMIC WELDINGS.
 3. BOLT POLE BASE PER MANUFACTURER INSTRUCTIONS WITH ANCHOR BOLTS MINIMUM LENGTH OF 3/8"x3/4". GROUT AS REQUIRED WITH NON-SHRINK GROUT.
 4. TERMINATE ALL CONDUITS WITH GROUNDING BUSHINGS BONDED TO GROUND LUG.
 5. PROVIDE IN-LINE FUSE AT POLE BASE.
 6. PROVIDE ADDITIONAL CONDUIT FOR SECURITY CAMERAS AS NOTED ON DRAWINGS.
 7. REFER TO 3/E-301 FOR HANDHOLE AND WIRING DETAILS.

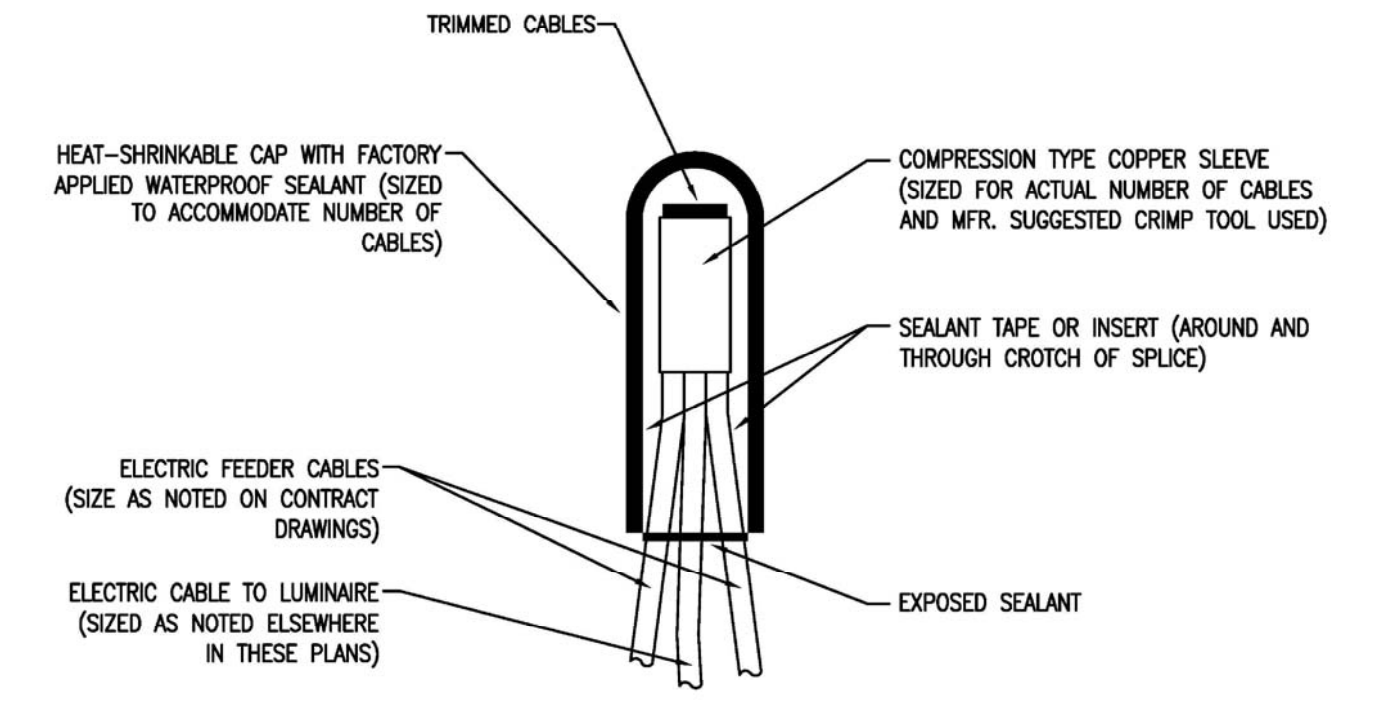
1 LIGHT POLE BASE
C6.1 | C4.2 NOT TO SCALE



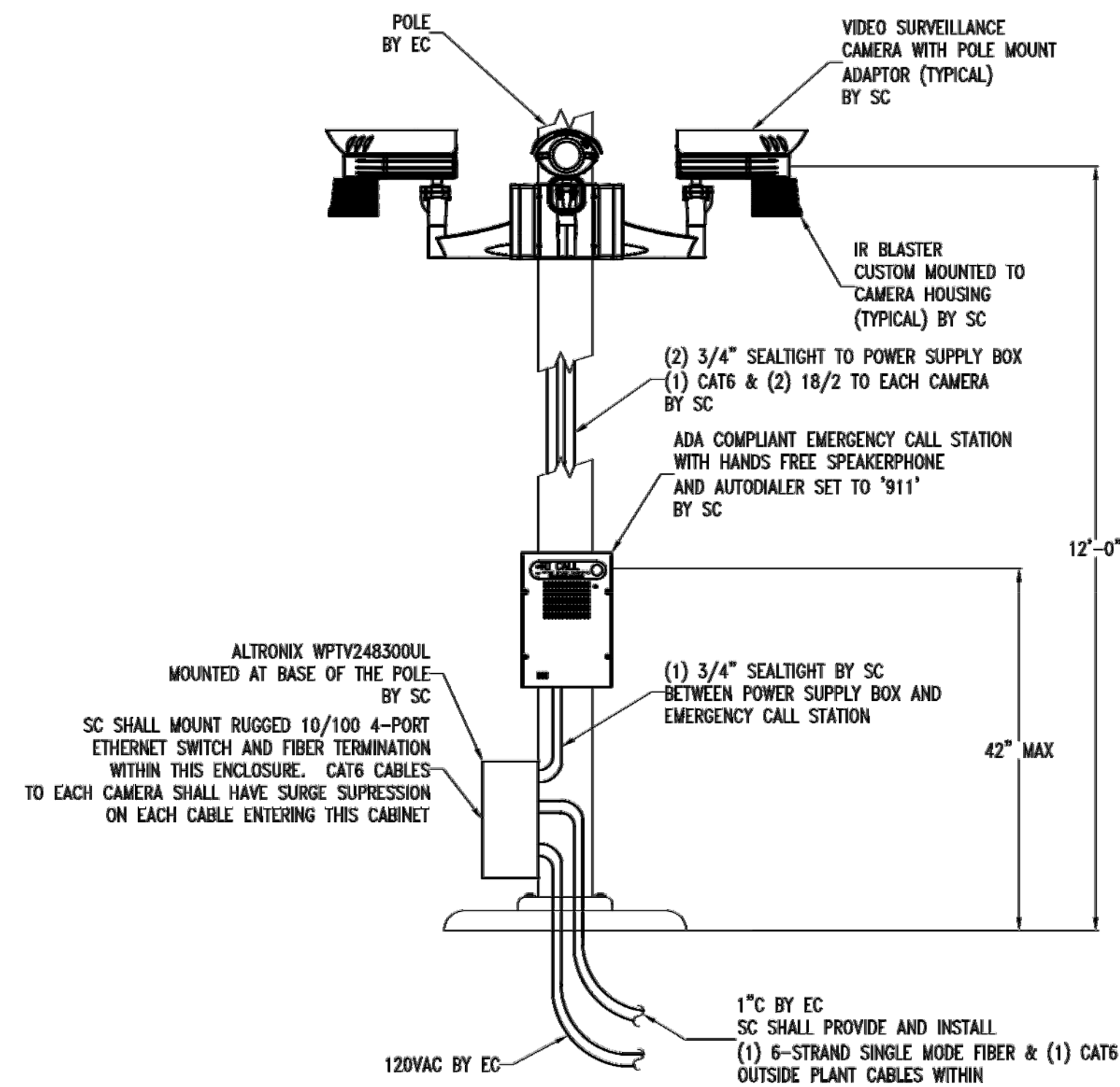
2 TYPICAL LIGHT POLE HANDHOLE WIRING DETAIL
C6.1 | C4.2 NOT TO SCALE



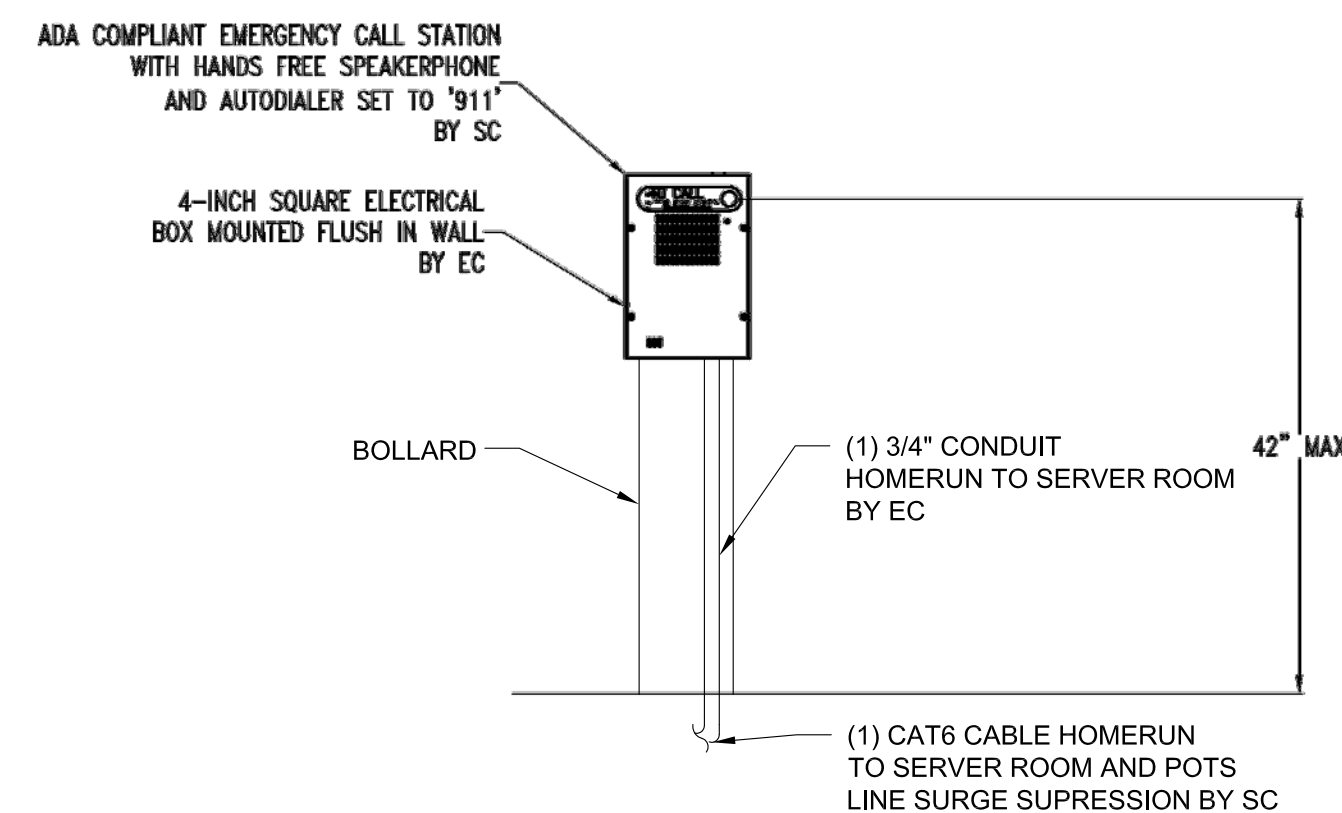
3 DIRECT BURIED CONDUIT DETAIL
C6.1 | C4.2 NOT TO SCALE



4 SPLICING ELECTRIC CABLES - BASIC MATERIALS AND METHODS
C6.1 | C4.2 NOT TO SCALE

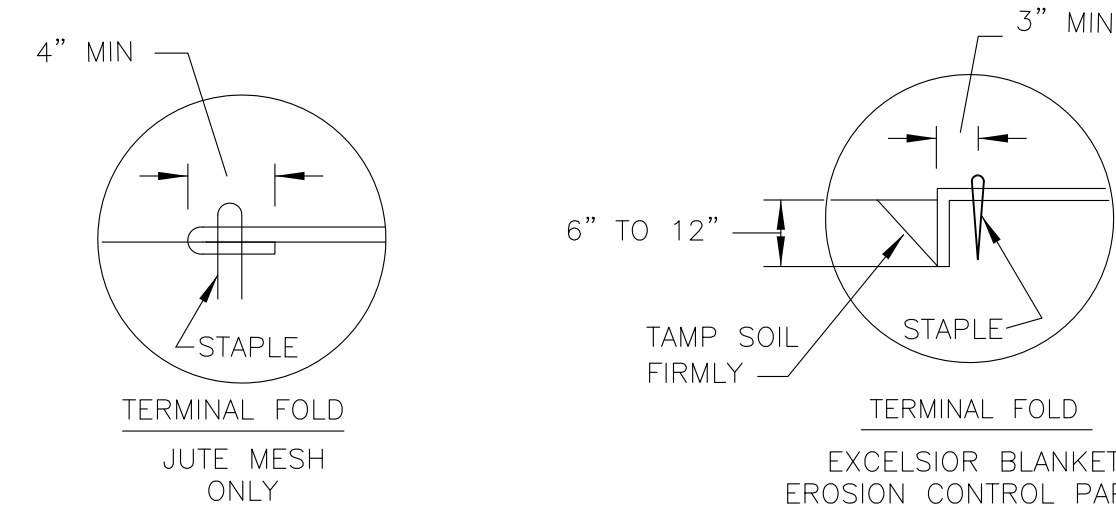
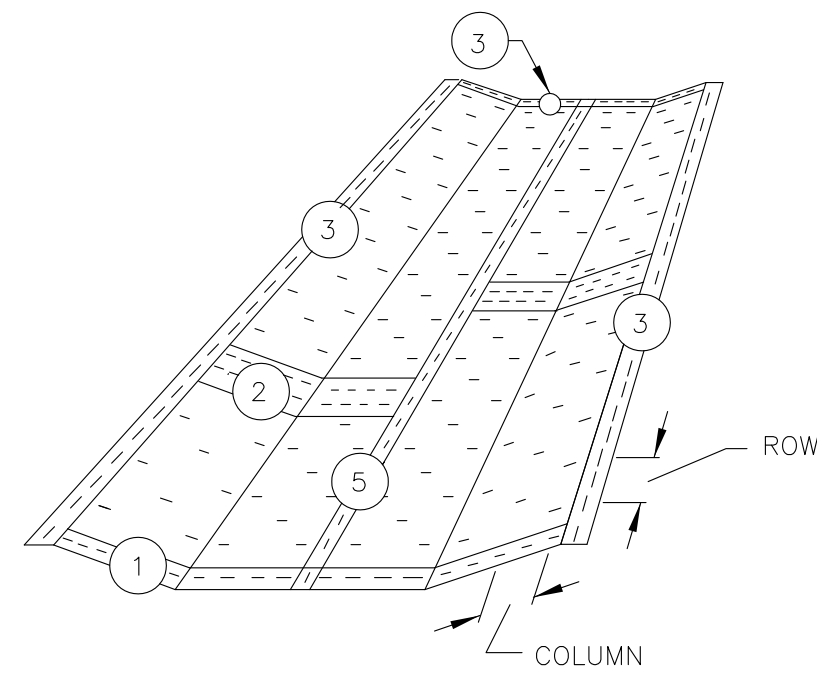


5 POLE MOUNTED CAMERA DETAIL
C6.1 | C4.2 NOT TO SCALE

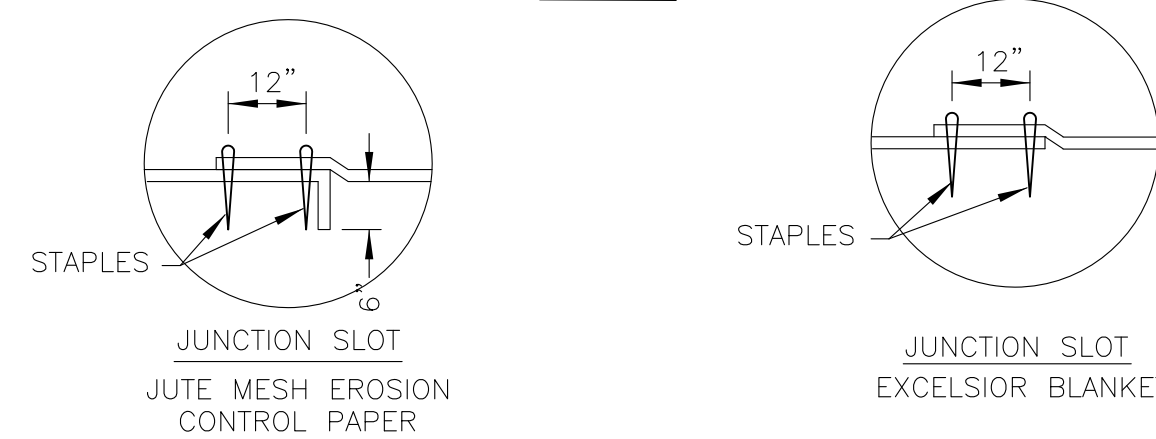


6 BOLLARD MOUNTED EMERGENCY CALL STATION DETAIL
C6.1 | C4.2 NOT TO SCALE

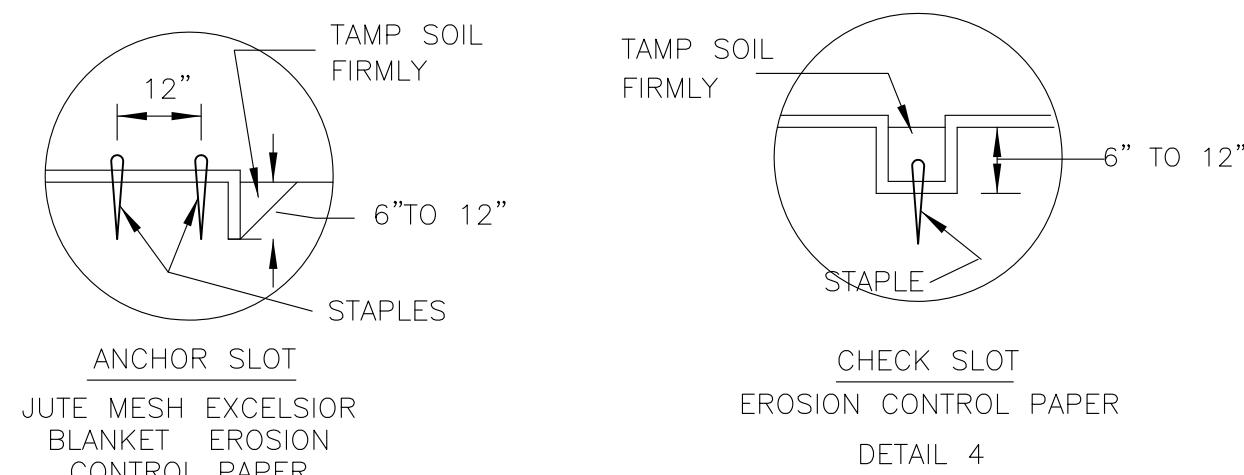
SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
DESIGNED BY: DTE				
DRAWN BY: DTE				
REVIEWED BY: 6AB				
SUBMITTED BY:				
ENGINEER:				
SOL. NO.				DATE: 25 FEBRUARY 13
PROJECT NO. 2008				SEQUENCE NO.
DRAWING NUMBER				SHEET NO. 7 OF 25
				C4.2



DETAIL 1



DETAIL 2



DETAIL 3



DETAIL 5

NOTES:

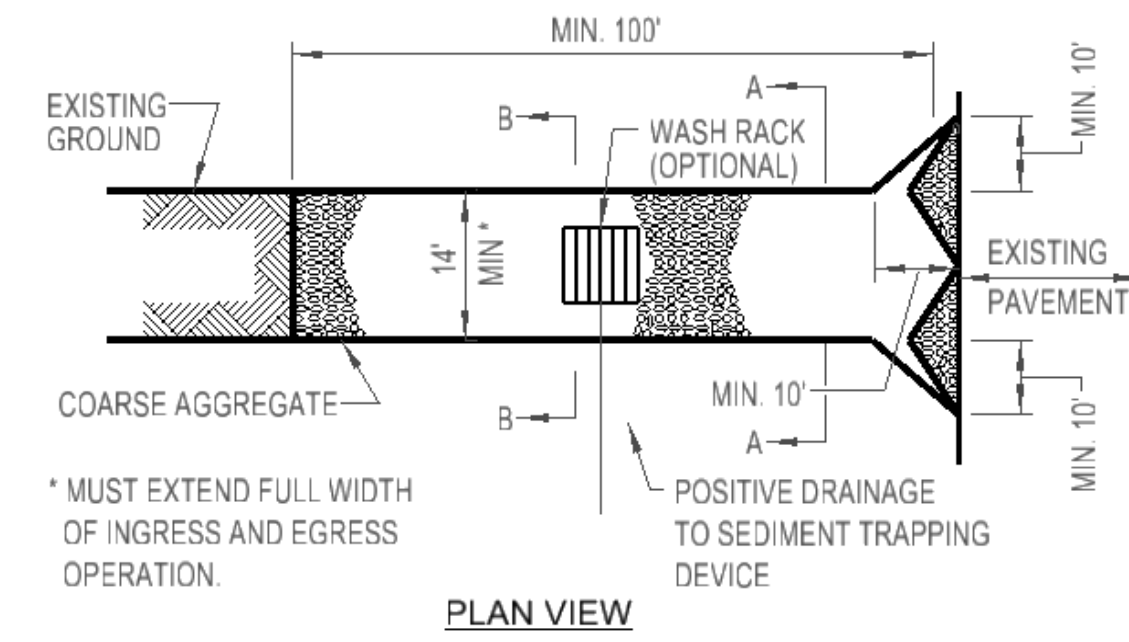
1. EROSION CONTROL BLANKETS ARE TO BE INSTALLED ON STEEP (3H:1V OR GREATER) SIDE SLOPES THAT WILL BE DISTURBED DURING CONSTRUCTION ACTIVITY.
2. ON EROSION CONTROL PAPER SLOTS SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X 150' ROLL OF MATERIAL.
4. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.



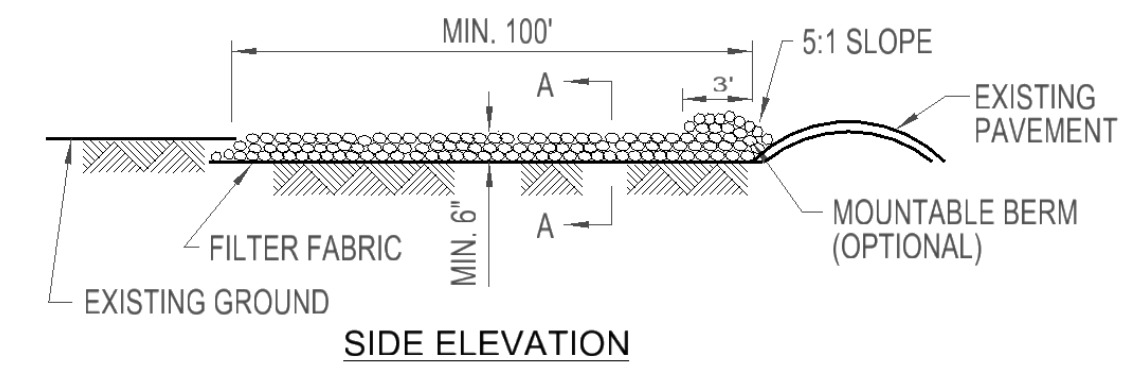
C7.1 | C4.3

EROSION CONTROL BLANKET

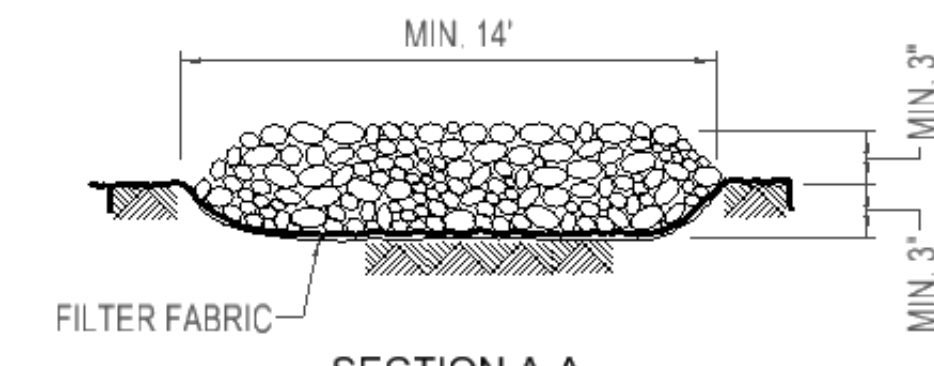
NOT TO SCALE



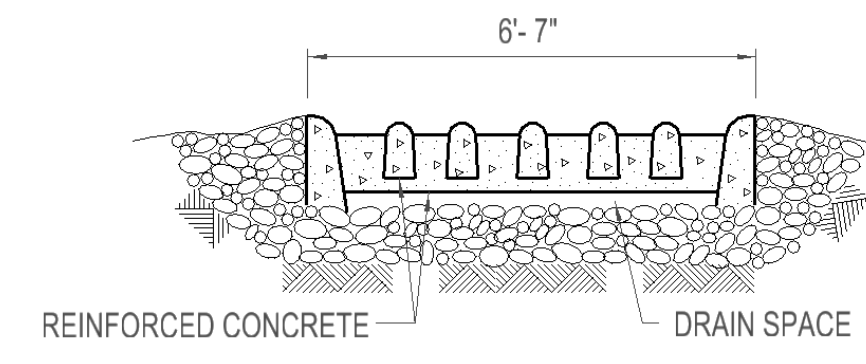
PLAN VIEW



SIDE ELEVATION



SECTION A-A



SECTION B-B

NOTES:

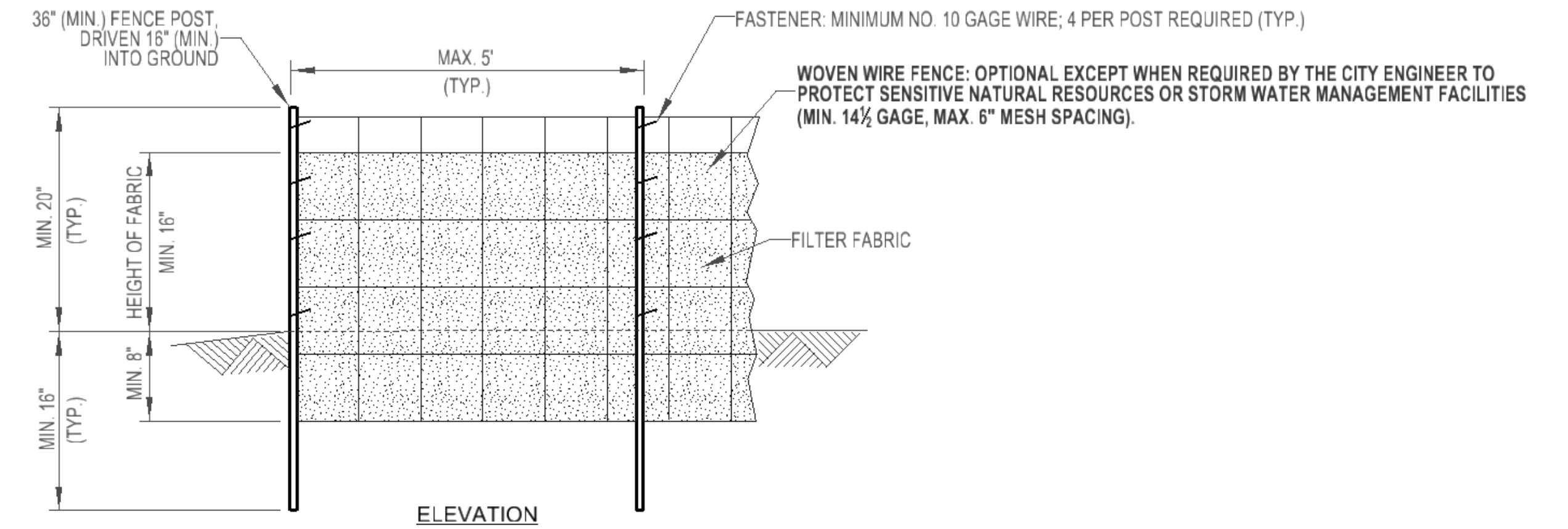
1. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 282 OF THE IDOT STANDARD SPECIFICATIONS AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE PLACEMENT OR ROCK.
2. ROCK OR RECLAIMED CONCRETE SHALL MEET ONE OF THE FOLLOWING IDOT COARSE AGGREGATE GRADATIONS, CA-1, CA-2, CA-3, OR CA-4.
3. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. IF WAS RACKS ARE USED, THEY SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.



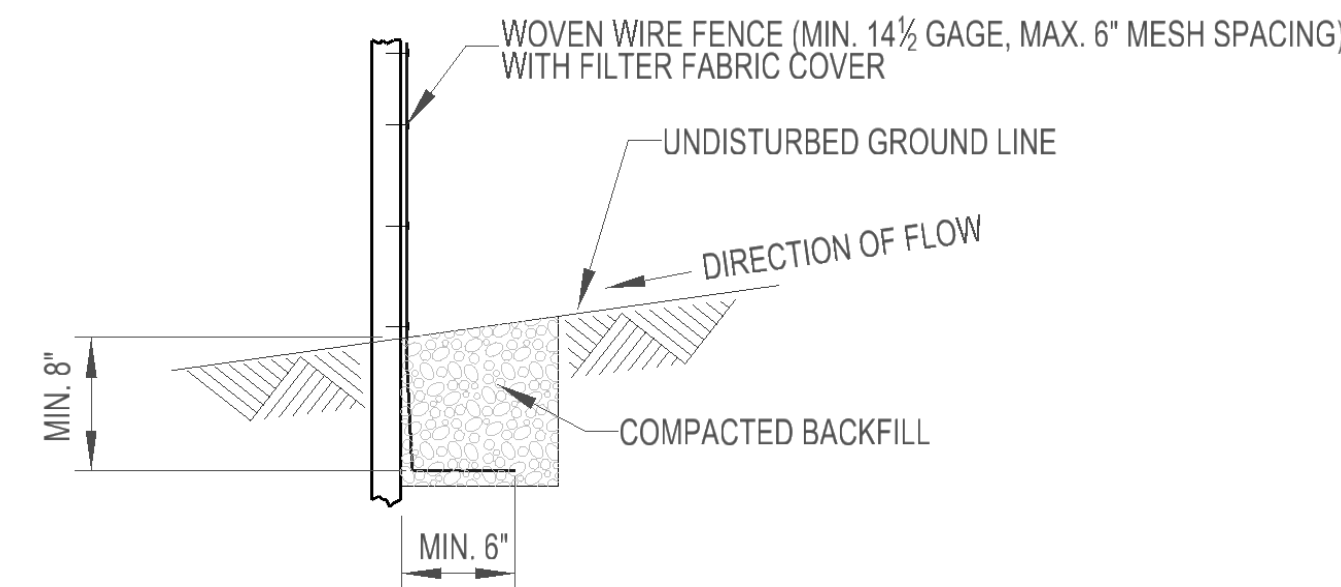
C7.1 | C4.3

STABILIZED CONSTRUCTION EXIT

NOT TO SCALE



ELEVATION



FABRIC ANCHOR DETAIL

NOTES:

1. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. THEY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POST WITH TIES OR STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24' AT TOP AND MID-SECTION.
2. WHEN TWO (2) SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX (6) INCHES AND FOLDED.
3. MATERIAL SHALL BE REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.
5. DOUBLE ROWS OF SILT FENCE SPACED FIVE (5) FEET APART SHALL BE PLACED AROUND EXISTING STORMWATER MANAGEMENT FACILITIES OR WETLANDS AS ADDITIONAL PROTECTION WHEN REQUIRED BY CITY ENGINEER.



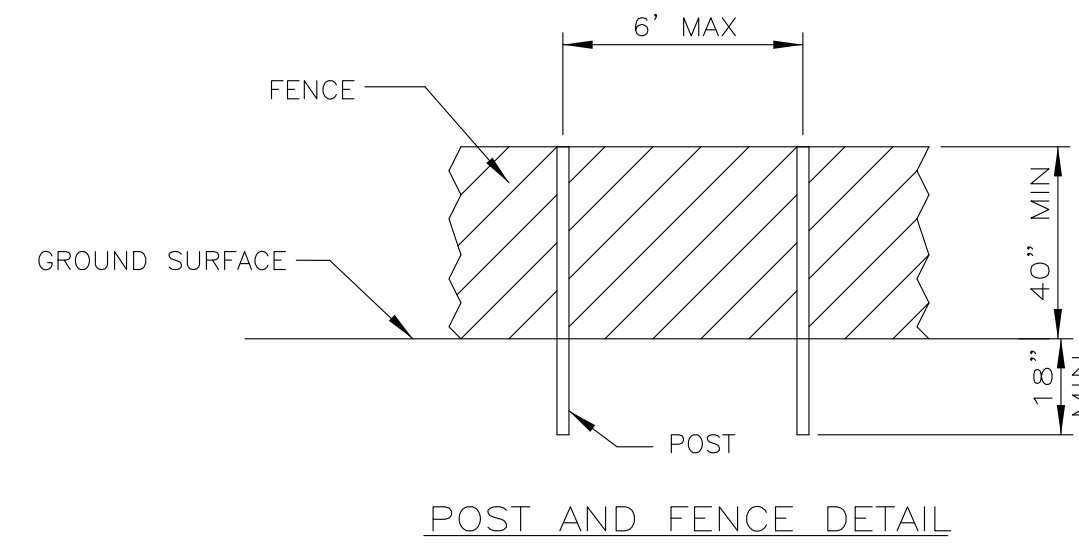
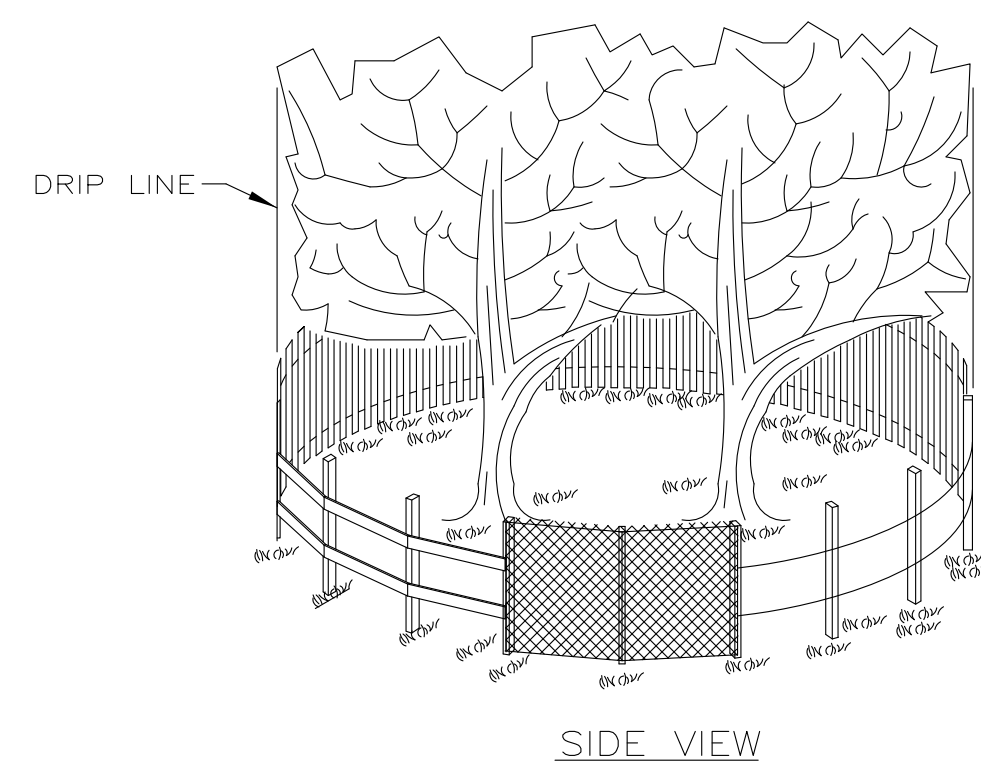
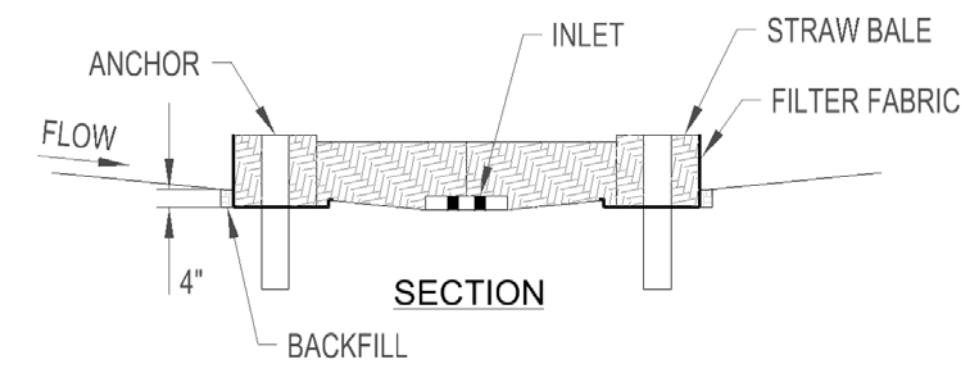
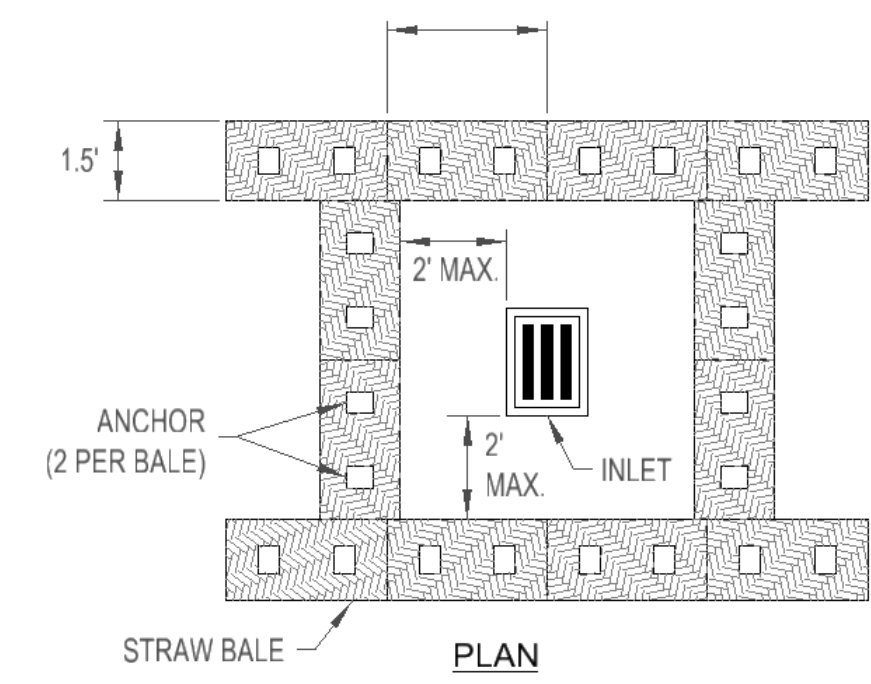
C7.1 | C4.3

SILT FENCE DETAIL

NOT TO SCALE

MATERIAL SPECIFICATIONS	
POSTS:	STEEL (EITHER "T" OR "U" TYPE) OR HARDWOOD WITH A MINIMUM CROSS-SECTIONAL AREA OF 3.0 SQ. IN.
FENCE:	WOVEN WIRE (14 1/2 GAGE) WITH 6" MAX. MESH OPENING
FILTER CLOTH:	FILTER X, MIRAFI 100X, STABILINKA T 140N.

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
SCUBA TRAINING AREA THREE OAKS RECREATION AREA EROSION CONTROL DETAILS				
DESIGNED BY:	CRYSTAL LAKE, IL			
DTE				
DRAWN BY:				
DTE				
REVIEWED BY:				
GAB				
SUBMITTED BY:	SOL. NO.	DATE: 25 FEBRUARY 13		SEQUENCE NO.
ENGINEER:	PROJECT NO. 2600	DRAWING NUMBER	SHEET NO. 8 OF 25	C4.3



NOTES:

1. THE FENCE SHALL BE LOCATED OUTSIDE THE DRIP LINE OF THE TREE TO BE SAVED AND IN NO CASE CLOSER THAN 5 FEET TO THE TRUNK OF ANY TREE.
2. FENCE POSTS SHALL BE EITHER STANDARD STEEL POSTS OR WOOD POSTS WITH A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQ.IN.
3. THE FENCE MAY BE EITHER 40" HIGH SNOW FENCE, 40" PLASTIC WEB FENCING OR ANY OTHER MATERIAL AS APPROVED BY THE ENGINEER/INSPECTOR.

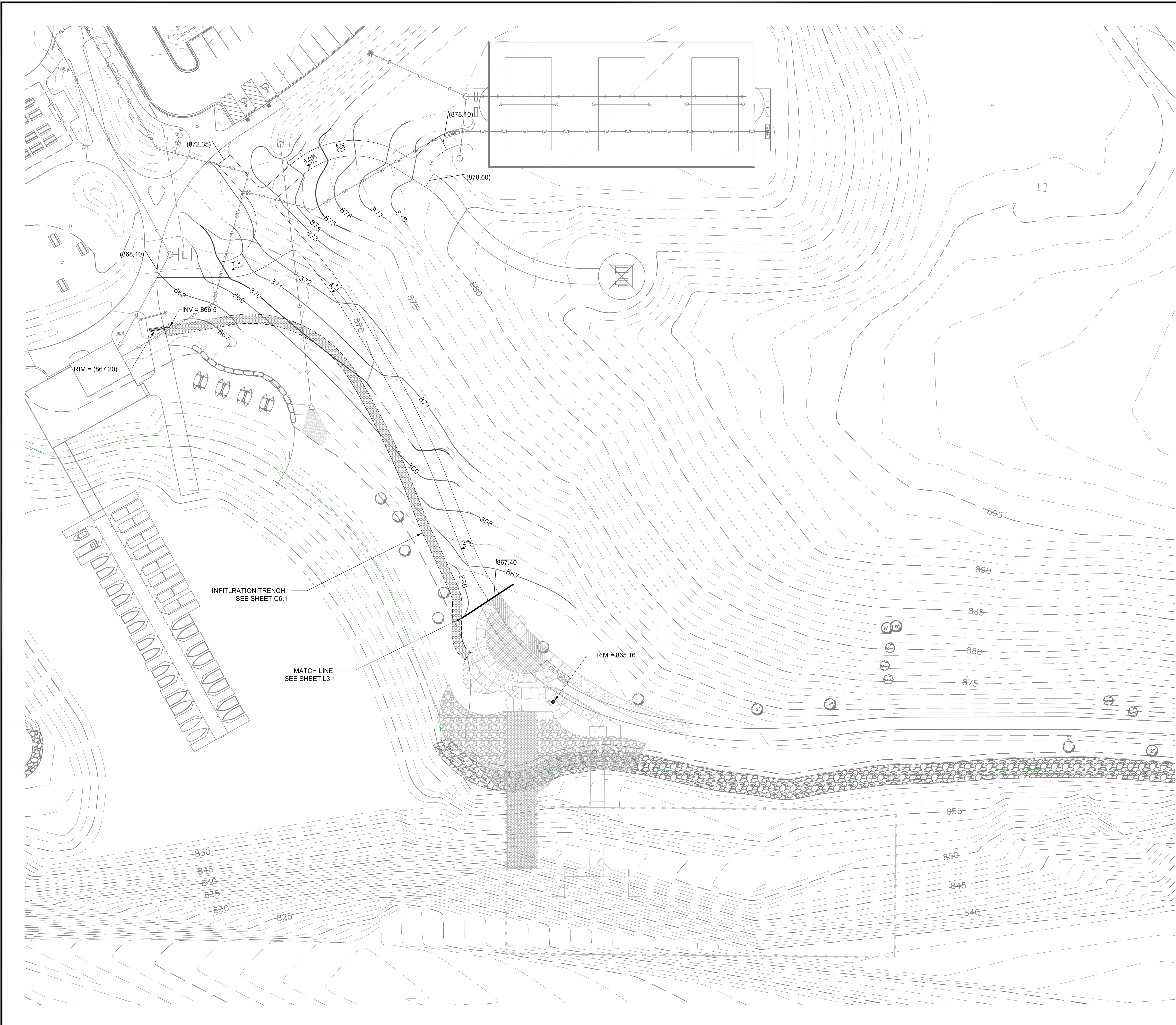
5 TREE PROTECTION-FENCING
C7.1 | C4.4 NOT TO SCALE

NOTES:

1. THE IMMEDIATE LAND AREA AROUND THE INLET SHOULD BE RELATIVELY FLAT (LESS THAN 1% SLOPE) AND LOCATED SO THAT THE ACCUMULATED SEDIMENT CAN BE EASILY REMOVED.
2. THE INSIDE EDGE OF THE BALES SHALL BE A MAXIMUM OF 2 FEET FROM THE EDGE OF THE INLET.
3. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF IL URBAN MANUAL MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1 OR 2, CLASS 1 WITH AOS OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
4. ANCHORS SHALL BE REBAR, STEEL PICKETS, OR 2"x2" STAKES, AND SHALL BE LONG ENOUGH TO EXTEND AT LEAST 1.5 TO 2.0 FEET INTO THE GROUND WHEN THE TOP IS FLUSH WITH THE BALE.
5. STRAW BALES MUST BE WRAPPED WITH STRING AROUND THE SIDES OF THE BALE, NOT ON THE BOTTOM (TO PREVENT STRING FROM ROTTING).

4 INLET PROTECTION
C7.1 | C4.4 NOT TO SCALE

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
DESIGNED BY: DTE				
DRAWN BY: JES				
REVIEWED BY: GAB				
SCUBA TRAINING AREA THREE OAKS RECREATION AREA EROSION CONTROL DETAILS				
CRYSTAL LAKE, IL				
SUBMITTED BY:		SOL. NO.	DATE: 25 FEBRUARY 13	
ENGINEER:		PROJECT NO. 2008	SHEET NO.	SEQUENCE NO.
		DRAWING NUMBER	4 OF 25	C4.4



GRAPHIC SCALE

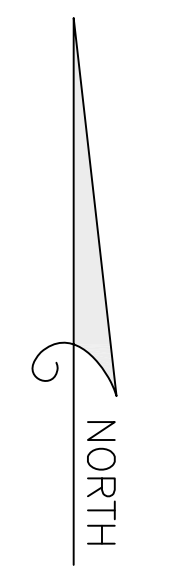
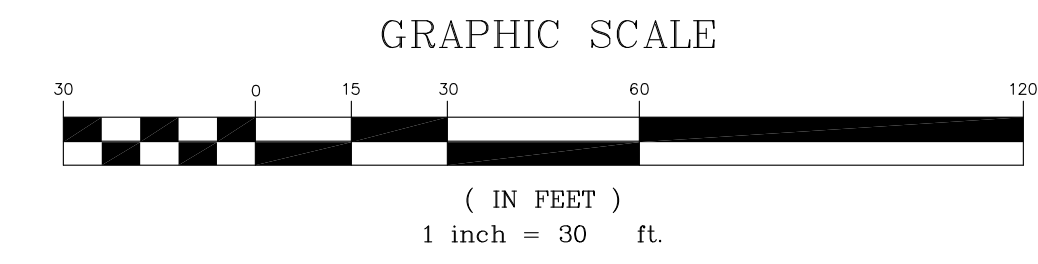
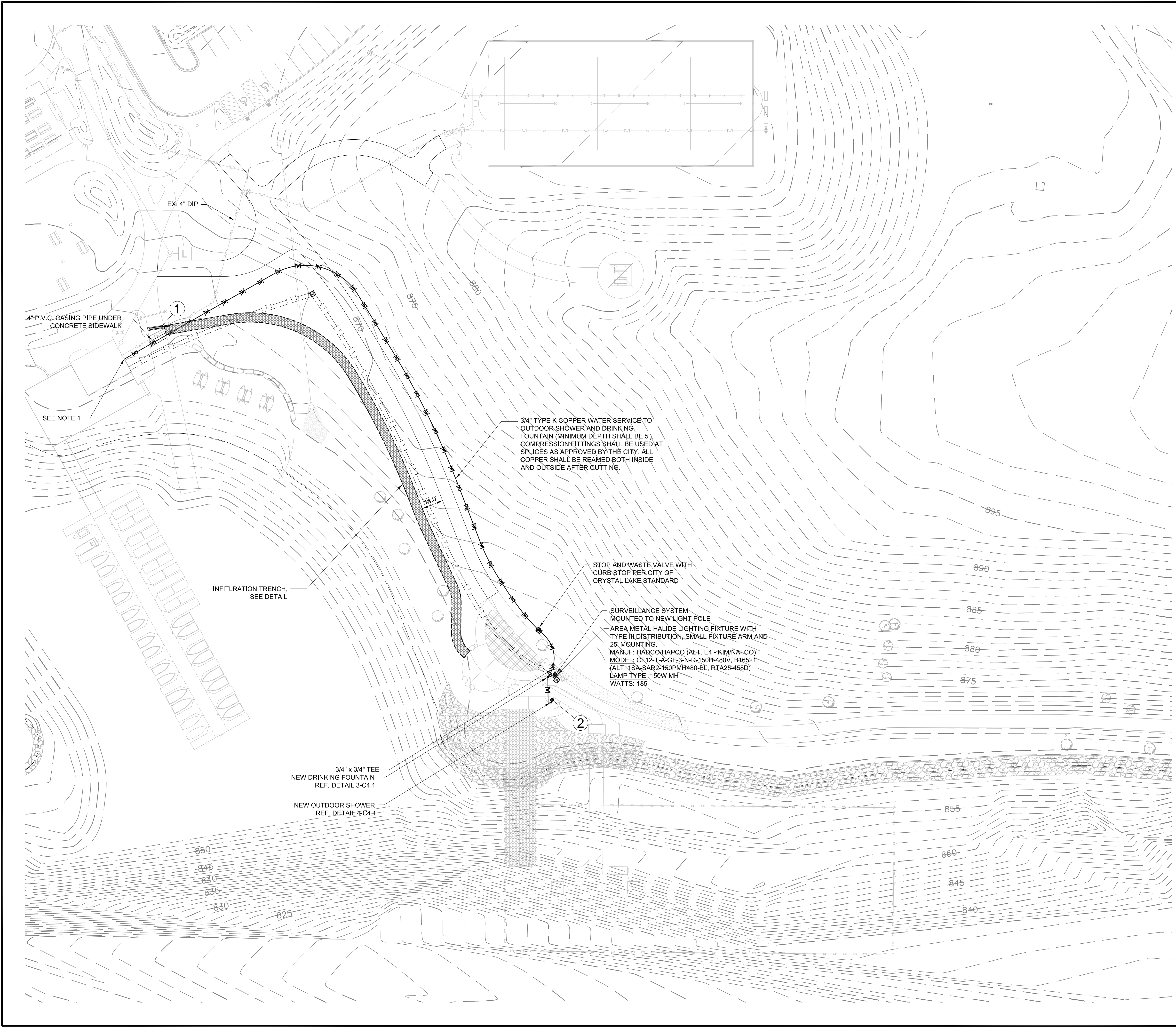
(IN FEET)
1 inch = 30 ft.

NORTH

LEGEND

- - - 353 - - - EXISTING MINOR CONTOUR LINE
- - - 355 - - - EXISTING MAJOR CONTOUR LINE
- 353 — NEW MINOR CONTOUR LINE
- 355 — NEW MAJOR CONTOUR LINE
- — — EXISTING STORM SEWER
- — — EXISTING SANITARY SEWER
- — — EXISTING WATER MAIN
- — — EXISTING WATER MAIN
- ⊙ EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING INLET
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING CORPORATION STOP
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING GATE VALVE IN VAULT
- ⊙ EXISTING SANITARY LIFT STATION
- ⊙ EXISTING SANITARY MANHOLE
- ◁ EXISTING FLARED END SECTION
- 53.80 NEW TOP OF CURB ELEVATION
- 53.30 NEW EDGE OF PAVEMENT ELEVATION
- (53.80) EXISTING TOP OF CURB ELEVATION
- (53.30) EXISTING EDGE OF PAVEMENT ELEVATION

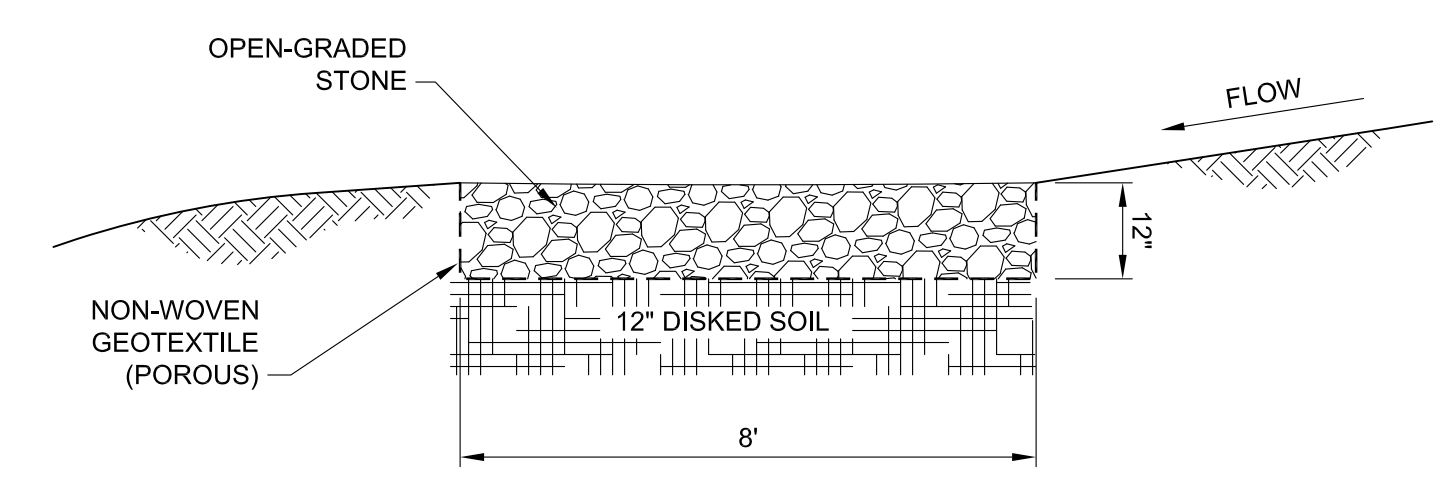
SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
<p>SCUBA TRAINING AREA THREE OAKS RECREATION AREA SITE GRADING AND DRAINAGE PLAN</p> <p style="text-align: right;">CRYSTAL LAKE, IL</p>				
DESIGNED BY:	<p>SOL. NO. _____ DATE: 25 FEBRUARY 13</p> <p>PROJECT NO. 2608 SEQUENCE NO. _____</p> <p>DRAWING NUMBER SHEET NO. C5.1</p> <p>10 OF 25</p>			
DTE				
DRAWN BY:				
DTE				
REVIEWED BY:				
GAB				
SUBMITTED BY:				
ENGINEER:				



LEGEND

- - - 353 - - - EXISTING MINOR CONTOUR LINE
- - - 355 - - - EXISTING MAJOR CONTOUR LINE
- — — EXISTING STORM SEWER
- — — EXISTING SANITARY SEWER
- — — EXISTING WATER MAIN
- — — EXISTING WATER MAIN
- ⊙ EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING INLET
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING CORPORATION STOP
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING GATE VALVE IN VAULT
- ⊙ EXISTING SANITARY LIFT STATION
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING FLARED END SECTION
- — — NEW WATER SERVICE
- ⊙ NEW CURB BOX
- - - NEW 1.5" CONDUIT IN TRENCH, REF. DETAIL 3-C4.2
- - - NEW 1" CONDUIT IN TRENCH
- ⊙ NEW ELECTRIC HANDHOLE, REF. IDOT STD. DETAIL 814001-02
- ⊙ NEW LIGHT POLE, REF. DETAIL 1.2-C4.1

- ① TYPE M TRENCH FRAME WITH GRATED COVER (NEENAH R-4996-A1 WITH TYPE P GRATE OR EQUAL)
RIM = 867.20
INV. = 866.50 (NEW 4" E)
- ② CATCH BASIN TYPE C WITH OPEN BOTTOM, TYPE D FRAME & GRATE (NEENAH R-4370-21 OR EQUAL)
REF. DETAIL 1-C4.1
RIM = 865.16
INV. = 862.16 (12" SE)



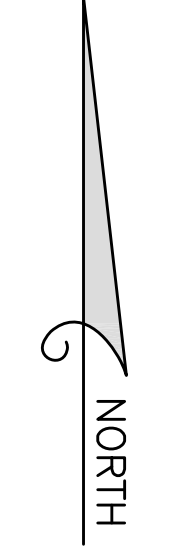
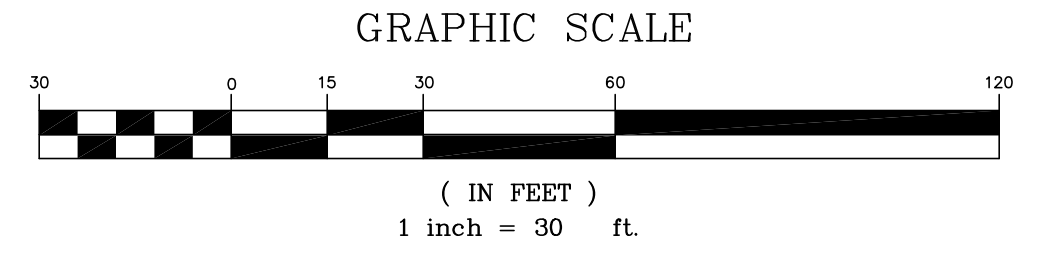
INFILTRATION TRENCH

NOTE: INFILTRATION TRENCH SHALL BE INSTALLED AFTER CONSTRUCTION ACTIVITIES HAVE ENDED.

NOTES:

1. WATER SERVICE TO TIE INTO BUILDING AND INCLUDE NEW RPZ VALVE (MATCH SERVICE SIZE) AND 3/4" METER (WITHIN BUILDING) CONTRACTOR TO CORE THROUGH FLOOR TO MAKE CONNECTION. ALL PLUMBING WITHIN BUILDING SHALL BE IN ACCORDANCE WITH THE ILLINOIS PLUMBING CODE. CORPORATION STOP SHALL BE MUELLER, FORD, OR A.Y. McDONALD.

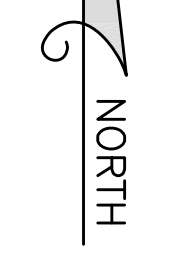
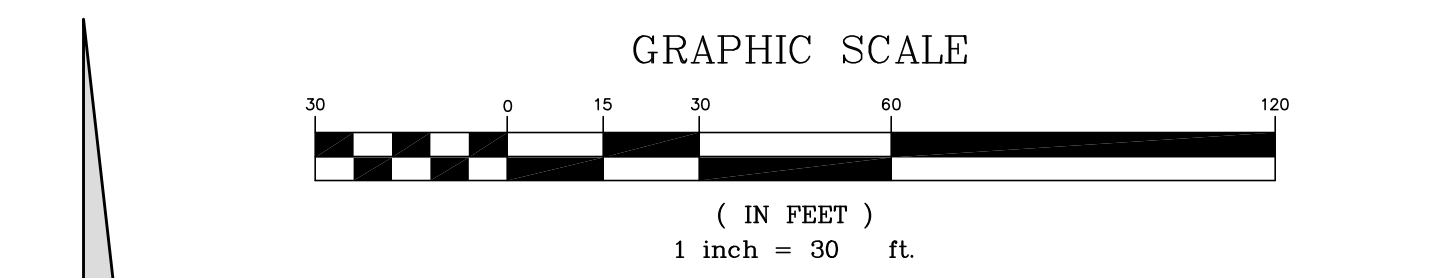
SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
SCUBA TRAINING AREA THREE OAKS RECREATION AREA SITE UTILITY PLAN CRYSTAL LAKE, IL				
DESIGNED BY:	DATE: 25 FEBRUARY 13			
DTE				
DRAWN BY:				
DTE	PROJECT NO. 2608	SHEET NO. 11 OF 25	SEQUENCE NO. C6.1	
REVIEWED BY:	SUBMITTED BY: _____ SOL. NO. _____ DATE: _____			
GAB	ENGINEER: _____ DRAWING NUMBER _____			



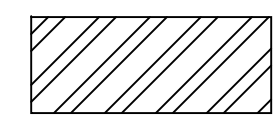
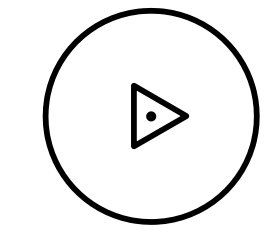
LEGEND

- EXISTING MINOR CONTOUR LINE
- EXISTING MAJOR CONTOUR LINE
- EXISTING STORM SEWER
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING INLET
- EXISTING FLARED END SECTION
- EXISTING DECIDUOUS TREE
- TREE PROTECTION FENCING
REF. DETAIL 5-C4.4
- SILT FENCE, REF. DETAIL 3-C4.3
- CHAIN LINK CONSTRUCTION FENCE
- EROSION CONTROL BLANKET
REF. DETAIL 1-C4.3
- STABILIZED CONSTRUCTION ENTRANCE
REF. DETAIL 2-C4.3
- INLET PROTECTION, REF. DETAIL 4-C4.4

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION
SCUBA TRAINING AREA THREE OAKS RECREATION AREA				
SITE EROSION CONTROL PLAN				
CRYSTAL LAKE, IL				
DESIGNED BY: DTE		SOL. NO. _____ DATE: 25 FEBRUARY 13 PROJECT NO. 2600 SEQUENCE NO. _____ DRAWING NUMBER _____ SHEET NO. C7.1 12 OF 25		
DRAWN BY: JES				
REVIEWED BY: GAB				
SUBMITTED BY:		ENGINEER:		



LEGEND

-  NATIVE RESTORATION
-  TRANSPLANTED TREE, NEW LOCATION
CONSULT OWNER FOR FINAL LAYOUT
AND SPECIES. SEE SHEET C2.1 FOR
EXISTING TREE LOCATIONS.

NOTES:

1. RESTORATION LIMIT LINES ARE APPROXIMATE. SEED TO LIMITS OF GRADING AND DISTURBANCE.
2. TREE MULCH RINGS ARE 5' DIAMETER, TYP.
3. PLACE EROSION CONTROL BLANKET ON ALL SEEDED AREAS.
4. CONTRACTOR RESPONSIBLE FOR EROSION CONTROL IN ALL SEEDED AREAS.
5. DO NOT LOCATE PLANTS WITHIN 10' OF UTILITY STRUCTURES. DO NOT LOCATE PLANTS WITHIN 5' HORIZONTALLY OF UNDERGROUND UTILITY LINES AND 8' RADIUS CLEAR OF ANY PLANTS GREATER THAN 12' HEIGHT NEAR FIRE HYDRANTS.
6. PLANTS AND OTHER MATERIALS ARE QUANTIFIED AND SUMMARIZED FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL AGENCIES ONLY. CONFIRM AND INSTALL SUFFICIENT QUANTITIES TO COMPLETE THE WORK AS DRAWN. NO ADDITIONAL PAYMENTS WILL BE MADE FOR MATERIALS REQUIRED TO COMPLETE THE WORK AS DRAWN.

Planting List: Native Restoration Mix

Scientific Name	Common Name	Seed (oz/acre)
Cover crop		
<i>Avena sativa</i>	Seed oats	112
<i>Lolium multiflorum</i>	Annual ryegrass	96
Grasses		
<i>Andropogon gerardii</i>	Big bluestem	16
<i>Andropogon scoparius</i>	Little bluestem	32
<i>Bouteloua curtipendula</i>	Side-oats grama	32
<i>Elymus canadensis</i>	Canada wild rye	32
<i>Panicum virgatum</i>	Switchgrass	16
<i>Sorghastrum nutans</i>	Indian grass	16
Forbs		
<i>Aster laevis</i>	Smooth blue aster	2
<i>Aster novae-angliae</i>	New England aster	2
<i>Cassia fasciculata</i>	Partridge pea	6
<i>Coreopsis tripteris</i>	Tall coreopsis	2
<i>Echinacea pallida</i>	Pale purple coneflower	4
<i>Eryngium yuccifolium</i>	Rattlesnake master	1
<i>Helopsis helianthoides</i>	False sunflower	2
<i>Liatris aspera</i>	Rough blazing star	1
<i>Lupinus perennis</i>	Wild lupine	1
<i>Monarda fistulosa</i>	Wild bergamont	6
<i>Parthenium integrifolium</i>	Wild quinine	2
<i>Petalostemum purpureum</i>	Purple prairie clover	2
<i>Ratibida pinnata</i>	Yellow coneflower	4
<i>Rickelia hirta</i>	Black-eyed susan	8
<i>Silphium integrifolium</i>	Rosinweed	2
<i>Silphium laciniatum</i>	Compass plant	2
<i>Silphium teresbinthaceum</i>	Prairie dock	2
<i>Solidago nemoralis</i>	Old field goldenrod	2
<i>Solidago rigida</i>	Stiff goldenrod	2
<i>Tradescantia ohioensis</i>	Common spiderwort	2
<i>Verbena stricta</i>	Hoary vervain	2

DESIGNED BY: DTE		SCUBA TRAINING AREA THREE OAKS RECREATION AREA	
DRAWN BY: DTE			
REVIEWED BY: GAB			
SUBMITTED BY:		SOL. NO.	DATE: 25 FEBRUARY 13
ENGINEER:		PROJECT NO. 2608	SEQUENCE NO.
		DRAWING NUMBER	SHEET NO. C8.1 13 OF 25