

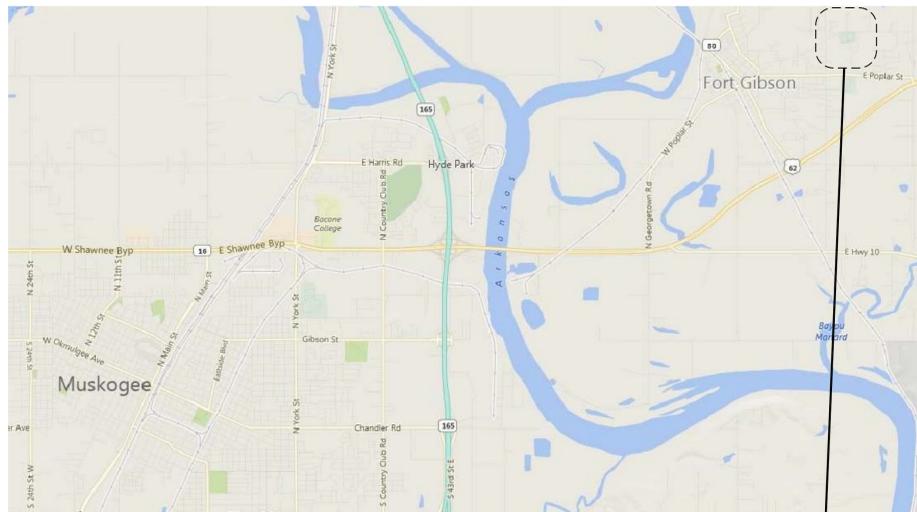


# Department Of Veterans Affairs

## FORT GIBSON NATIONAL CEMETERY FORT GIBSON, OKLAHOMA

### SUBSURFACE UNDERDRAIN, SECTION 21 PROJECT NUMBER 844-17-201

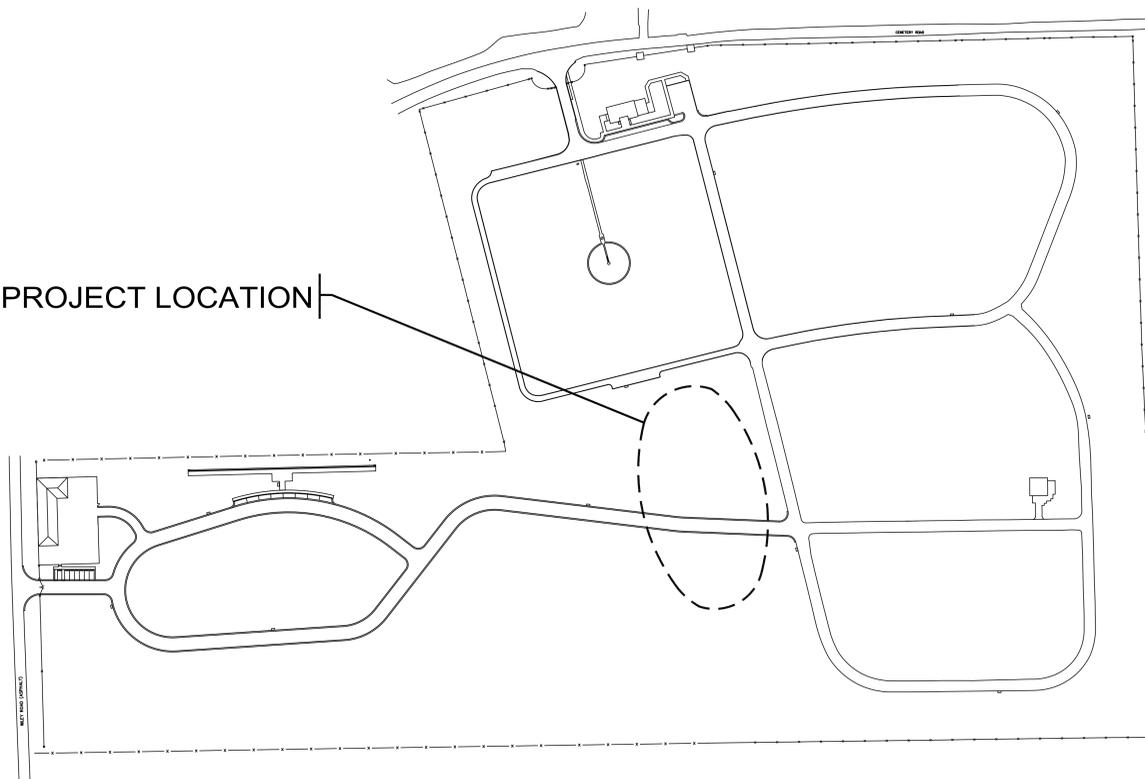
FORT GIBSON, OK



LOCATION MAPS

FORT GIBSON  
NATIONAL  
CEMETERY

PROJECT LOCATION



SITE PLAN

#### SHEET INDEX:

- X-101 TITLE SHEET
- L-101 EXISTING CONDITIONS
- L-102 EXCAVATION & DEMO PLAN
- L-103 DRAINAGE PLAN
- L-201 DRAINAGE DETAILS
- L-202 ROADWAY & STORM STRUCTURE DETAILS

Revisions	Date

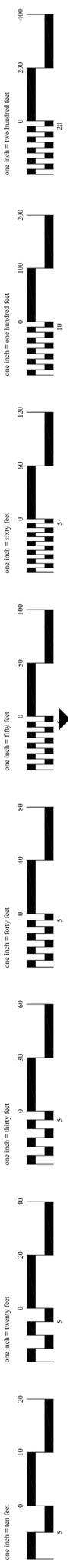
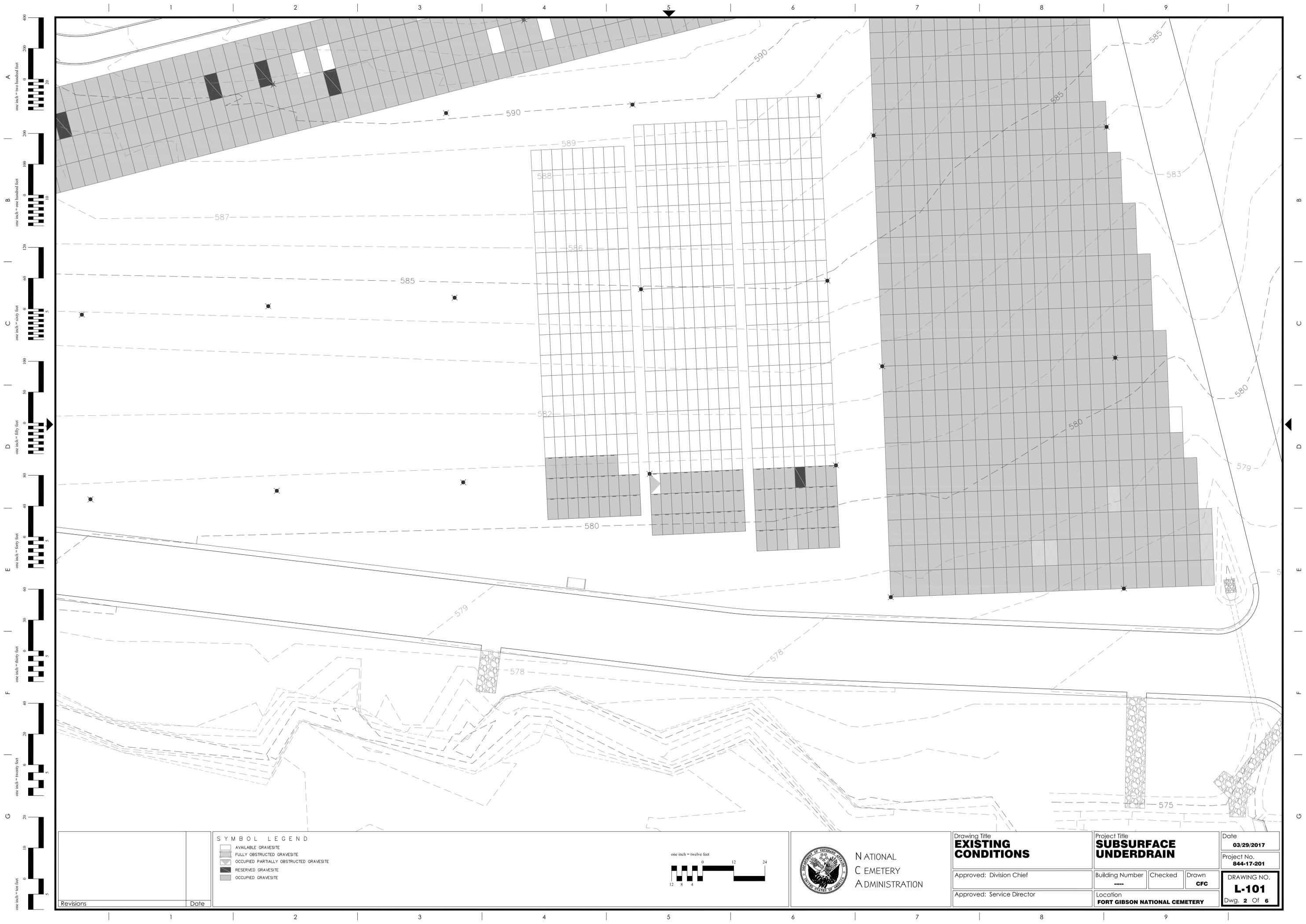


NATIONAL  
CEMETERY  
ADMINISTRATION

Drawing Title <b>COVER SHEET &amp; SHEET INDEX</b>		Project Title <b>SUBSURFACE UNDERDRAIN</b>		Date <b>03/29/2017</b>
Approved: Division Chief		Building Number .....	Checked CFC	Project No. <b>844-17-201</b>
Approved: Service Director		Location <b>FORT GIBSON NATIONAL CEMETERY</b>		DRAWING NO. <b>X-101</b> Dwg. 1 Of 6

Project Title <b>SUBSURFACE UNDERDRAIN</b>		Date <b>03/29/2017</b>
Building Number .....	Checked CFC	Project No. <b>844-17-201</b>
Location <b>FORT GIBSON NATIONAL CEMETERY</b>		DRAWING NO. <b>X-101</b> Dwg. 1 Of 6

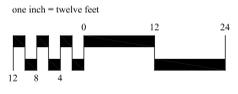
Date <b>03/29/2017</b>
Project No. <b>844-17-201</b>
DRAWING NO. <b>X-101</b> Dwg. 1 Of 6



Revisions	Date

**SYMBOL LEGEND**

	AVAILABLE GRAVESITE
	FULLY OBSTRUCTED GRAVESITE
	OCCUPIED PARTIALLY OBSTRUCTED GRAVESITE
	RESERVED GRAVESITE
	OCCUPIED GRAVESITE

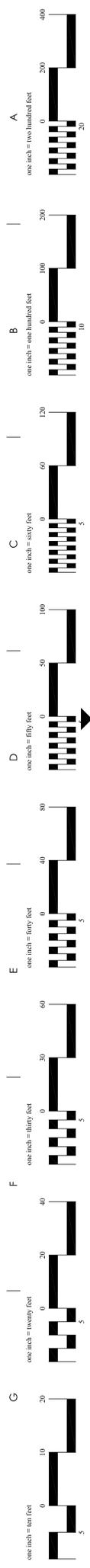
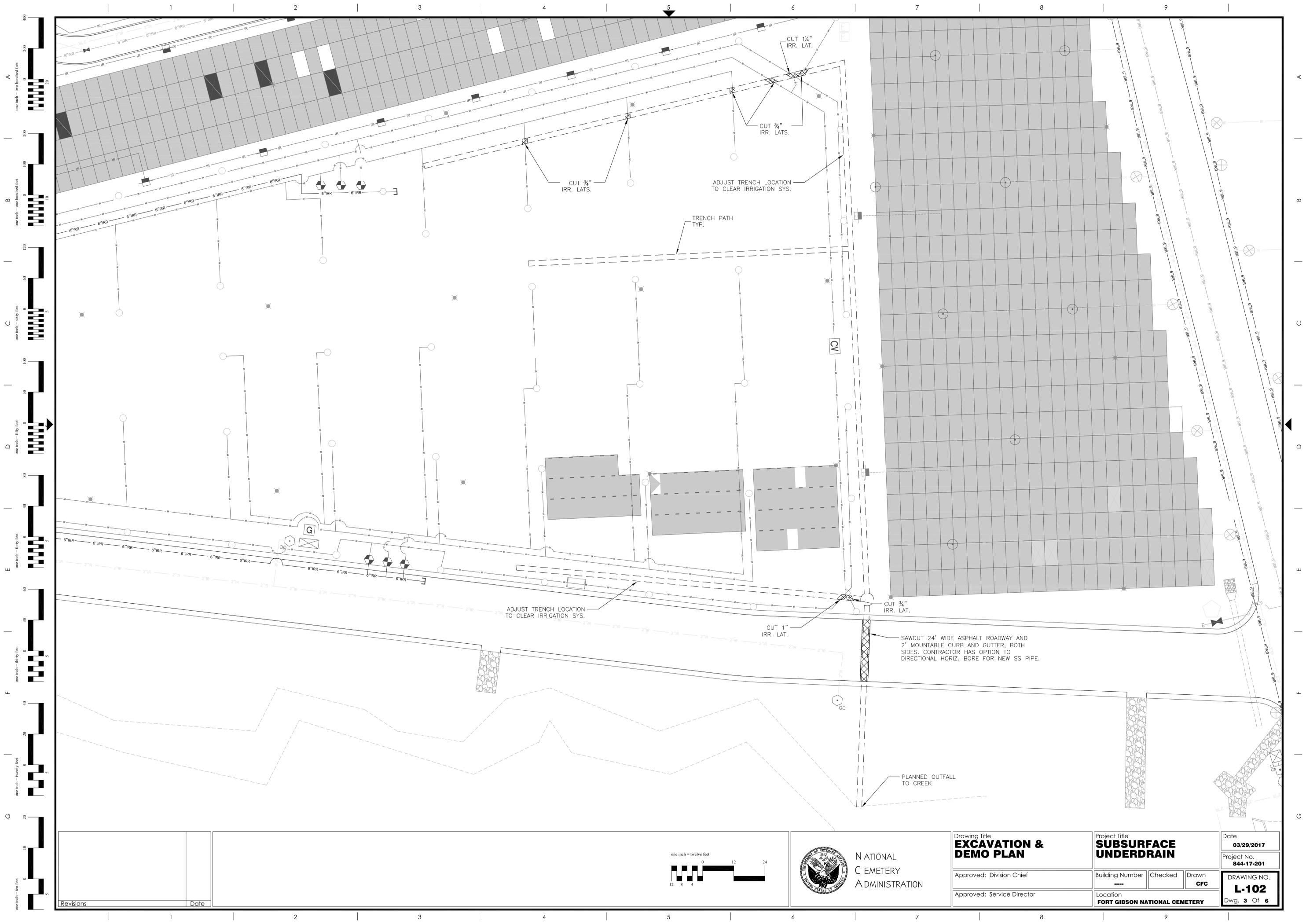


NATIONAL  
CEMETERY  
ADMINISTRATION

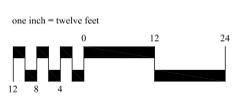
Drawing Title <b>EXISTING CONDITIONS</b>		
Approved: Division Chief		
Approved: Service Director		

Project Title <b>SUBSURFACE UNDERDRAIN</b>		
Building Number .....	Checked	Drawn <b>CFC</b>
Location <b>FORT GIBSON NATIONAL CEMETERY</b>		

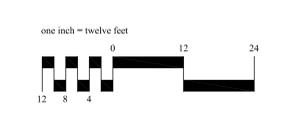
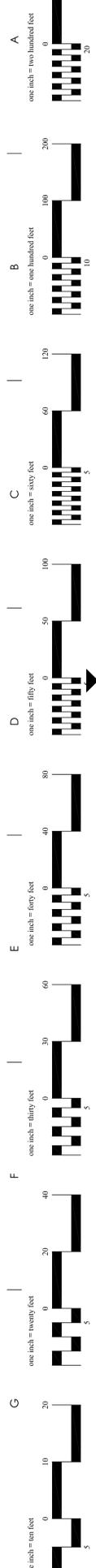
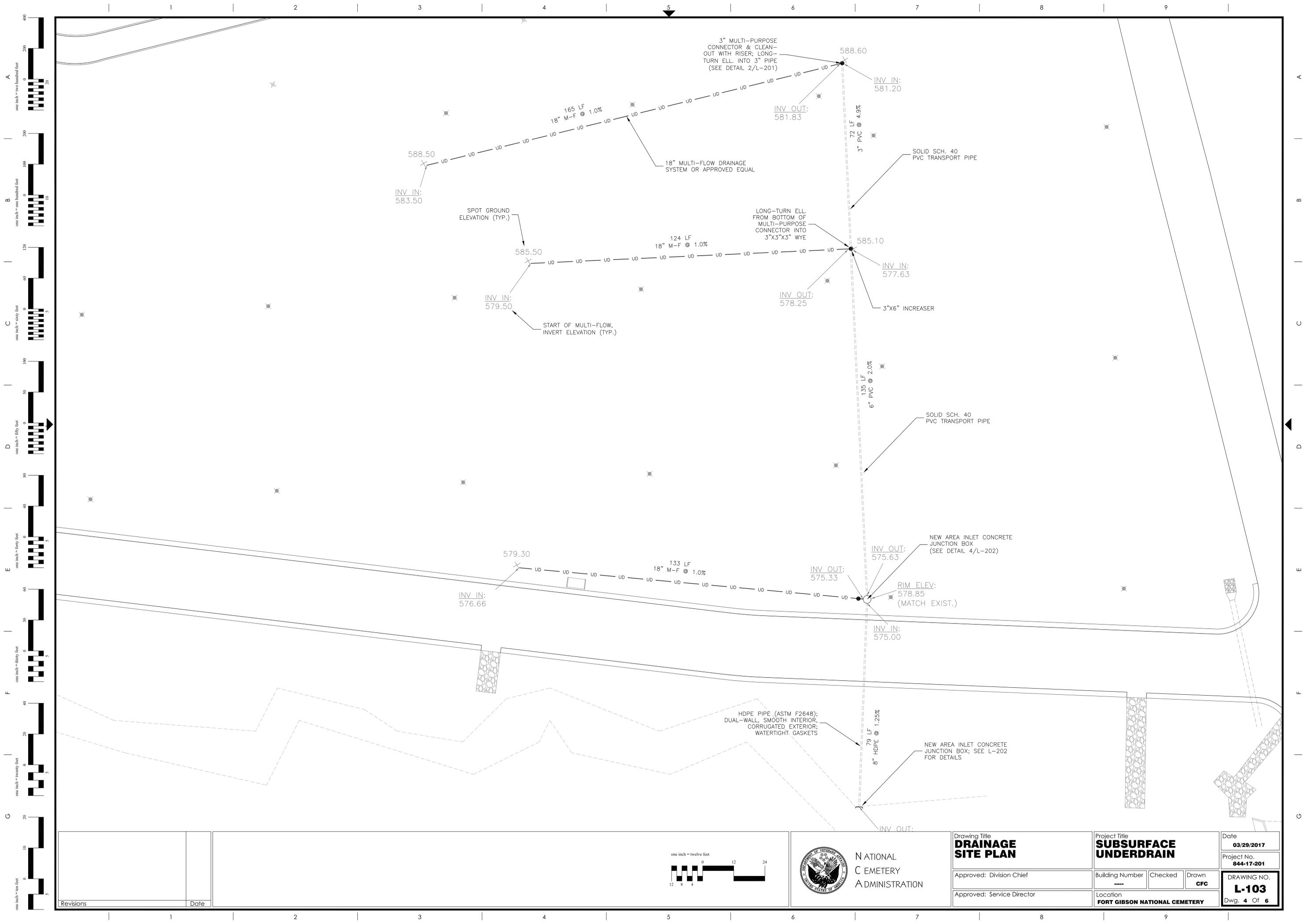
Date <b>03/29/2017</b>
Project No. <b>844-17-201</b>
DRAWING NO. <b>L-101</b>
Dwg. 2 Of 6



Revisions	Date

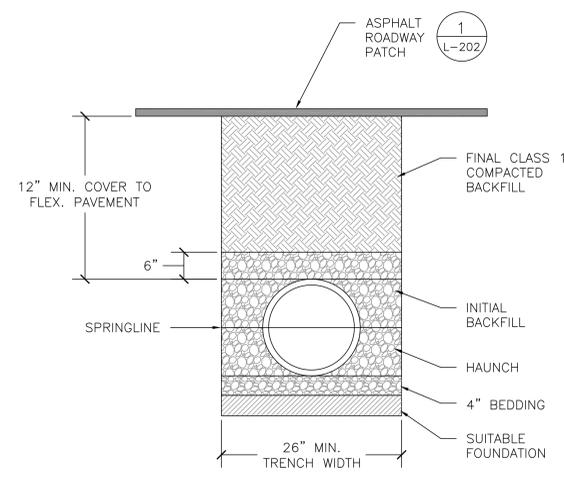


Drawing Title <b>EXCAVATION &amp; DEMO PLAN</b>	Project Title <b>SUBSURFACE UNDERDRAIN</b>		Date <b>03/29/2017</b>
	Approved: Division Chief	Building Number *****	Checked CFC
Approved: Service Director	Location <b>FORT GIBSON NATIONAL CEMETERY</b>	DRAWING NO. <b>L-102</b> Dwg. 3 Of 6	

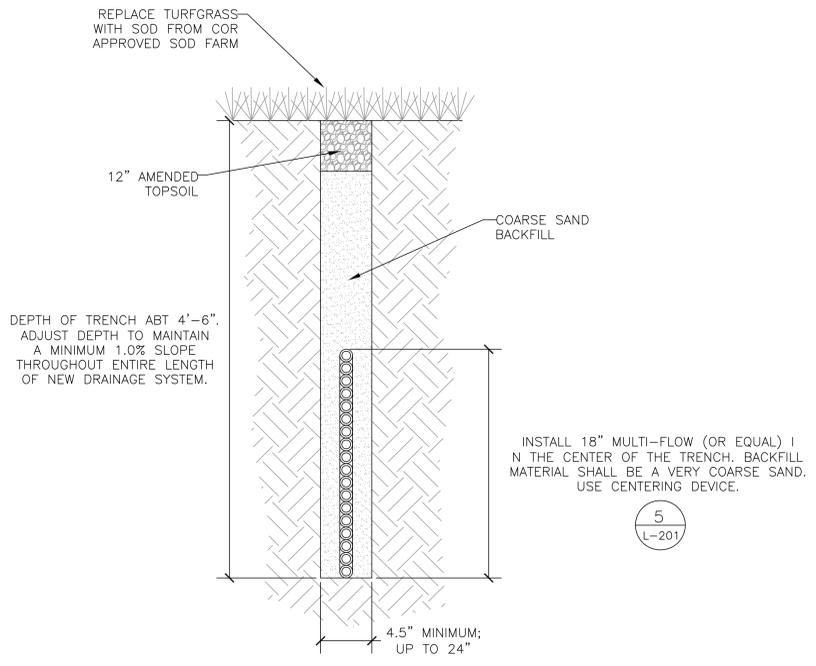


Drawing Title <b>DRAINAGE SITE PLAN</b>	Project Title <b>SUBSURFACE UNDERDRAIN</b>		Date <b>03/29/2017</b>
	Approved: Division Chief	Building Number *****	Checked CFC
Approved: Service Director	Location <b>FORT GIBSON NATIONAL CEMETERY</b>		DRAWING NO. <b>L-103</b> Dwg. 4 Of 6

Revisions	Date



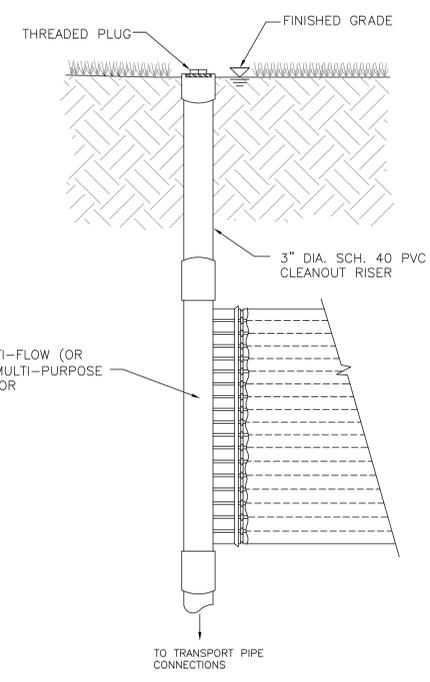
1 HDPE PIPE, TRENCH THROUGH PAVEMENT (NTS)



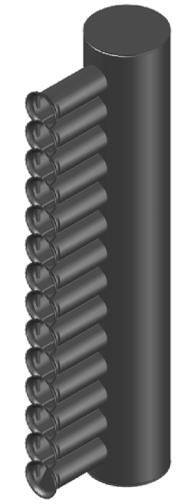
2 HDPE DRAIN PIPE ASSEMBLY AND CLEANOUT (NTS)

GENERAL NOTES:

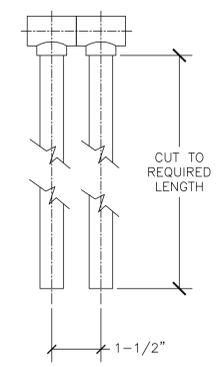
- ALL CONSTRUCTION WITHIN THE NATIONAL CEMETERY SHALL BE CONDUCTED WITH THE EMPHASIS ON PROPER CEMETERY ETIQUETTE AS THIS IS AN ACTIVE CEMETERY. NO DISRESPECTFUL ACTIVITY WILL BE TOLERATED.
- COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE COR TO AVOID CONFLICTS AND DISRUPTIONS OF SCHEDULED CEREMONIES AND DAILY CEMETERY OPERATIONS. SEQUENCE WORK AS NECESSARY TO ENSURE DAILY CEMETERY OPERATIONS REMAIN UNINTERRUPTED DURING CONSTRUCTION OPERATIONS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN PROPER SIGNS, BARRICADES, CONES, AND FENCES TO PROPERLY PROTECT THE PUBLIC AND CEMETERY STAFF FROM INJURY. WORK AREAS SHALL BE BARRICADED OFF DURING NON-WORKING HOURS AND WHEN THERE IS NO ACTIVE CONSTRUCTION AT THE SITE.
- THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SIGNAGE AND CONES AT THE LIMITS OF ALL PAVEMENT WORK AREAS SHOWING "DETOUR" AND POINTING VISITOR TRAFFIC AROUND THE CONSTRUCTION ZONE(S). ONE LANE OF TRAFFIC INBOUND AND OUTBOUND SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR'S REGISTERED PROFESSIONAL LAND SURVEYOR SHALL ESTABLISH AND CONTROL THE NEW DRAINAGE SYSTEM INVERTS, ALIGNMENTS, GRADES, ELEVATIONS, AND CROSS SECTIONS. CONTRACTOR IS TO LAYOUT AND CONSTRUCT ALL NEW WORK TO MATCH EXISTING GRADING AND ELEVATIONS AND TO ENSURE FULL AND COMPLETE DRAINAGE.
- IF CONTRACTOR CHOOSES TO SAWCUT THE ASPHALT INSTEAD OF HORIZONTAL BORING, ASPHALT SHALL BE NEATLY SAWCUT BEFORE REMOVAL. ALL SAWCUTS SHALL BE STRAIGHT, EVEN CUTS. JAGGED EDGES SHALL NOT BE PERMITTED.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING THE EXISTING STORM DRAINAGE SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT RESULTING FROM THIS PROJECT FROM THE STORM DRAINAGE STRUCTURES AND SYSTEM.
- ANY DAMAGE INCURRED TO EXISTING UTILITIES, IRRIGATION SYSTEM COMPONENTS, INSIDE AND OUTSIDE THE LIMITS OF WORK DUE TO CONTRACT OPERATIONS INCLUDING DAMAGE TO PAVEMENT, CURB AND GUTTER, SIDEWALKS AND OTHER STRUCTURES BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE GOVERNMENT. IF ANY EXISTING UTILITIES, UTILITY STRUCTURES, OR IRRIGATION SYSTEM COMPONENTS ARE UNCOVERED OR ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE SAFEGUARDED, PROTECTED FROM DAMAGE, AND SUPPORTED AS NECESSARY.
- ALL AREAS ADJACENT TO THE SITE SHALL BE MAINTAINED IN A CLEAN CONDITION, MUD AND DUST FREE AT ALL TIMES. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A WAY AS TO PREVENT TRACKING OF MUD OR SOIL ONTO PUBLIC THOROUGHFARES. AT THE END OF EACH DAY THE CONTRACTOR SHALL CLEAN UP ALL MUD OR SOIL WHICH HAS BEEN TRACKED ON TO CEMETERY AND PUBLIC STREETS.
- AREAS OUTSIDE OF THE CONSTRUCTION LIMITS IMPACTED BY OPERATIONS OF THE CONTRACTOR SHALL BE RETURNED TO THE CONDITION IN WHICH IT WAS FOUND PRIOR TO NEW CONSTRUCTION, EXCEPT WHERE NEW WORK IS SHOWN.
- ALL TREES SHALL BE PROTECTED FROM DAMAGE TO TRUNKS, BRANCHES AND ROOTS.
- ALL DEBRIS, EXCESS SOIL, CONCRETE, ASPHALT, ETC. SHALL BE REMOVED OFF CEMETERY PROPERTY AND PROPERLY DISPOSED OF AT AN APPROVED WASTE DISPOSAL SITE.
- THOROUGHLY CLEAN UP THE WORK AREA AT THE END OF EACH DAY'S WORK AND AT COMPLETION OF THE PROJECT. LEAVE PREMISES CLEAN AND FREE OF WASTE, SCRAP, USED EQUIPMENT, OR OTHER MATERIAL INTENTIONALLY OR INCIDENTALLY DELIVERED TO THE SITE BY CONTRACTOR OR CONTRACTOR'S PERSONNEL.
- IRRIGATION SYSTEM LINES, COMPONENTS, AND OTHER UTILITIES HAVE NOT BEEN LOCATED ON THIS SITE. ANY UTILITY INFORMATION SHOWN IS BASED UPON PREVIOUS CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING IRRIGATION SYSTEM COMPONENTS AND UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES OCCURRING FROM HIS FAILURE TO DO SO.
- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ANY NEEDED LAYDOWN, STAGING AND PARKING AREAS WITH THE COR.
- THE CONTRACTOR SHALL COORDINATE AND CONDUCT A PRE-CONSTRUCTION WALK-THRU WITH THE COR TO REVIEW AND DOCUMENT THE CONDITION OF ALL EXISTING CONDITIONS AND IMPROVEMENTS (I.E. PAVEMENT, FENCING, LANDSCAPING, ETC.) SURROUNDING THE PROJECT SITE.
- DEWATERING: CONTRACTOR SHALL PROVIDE A DEWATERING SYSTEM AS NEEDED TO PERFORM AND COMPLETE THE WORK. DEWATERING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.



3 MULTI-PURPOSE CONNECTOR TO CLEANOUT (NTS)

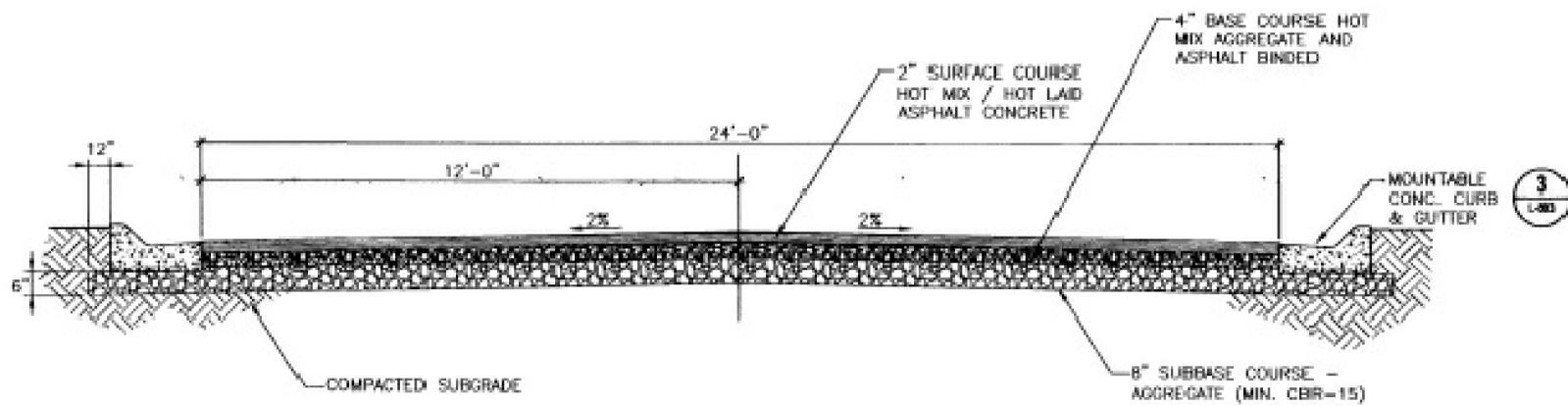


4 MULTI-PURPOSE CONNECTOR ISO (NTS)

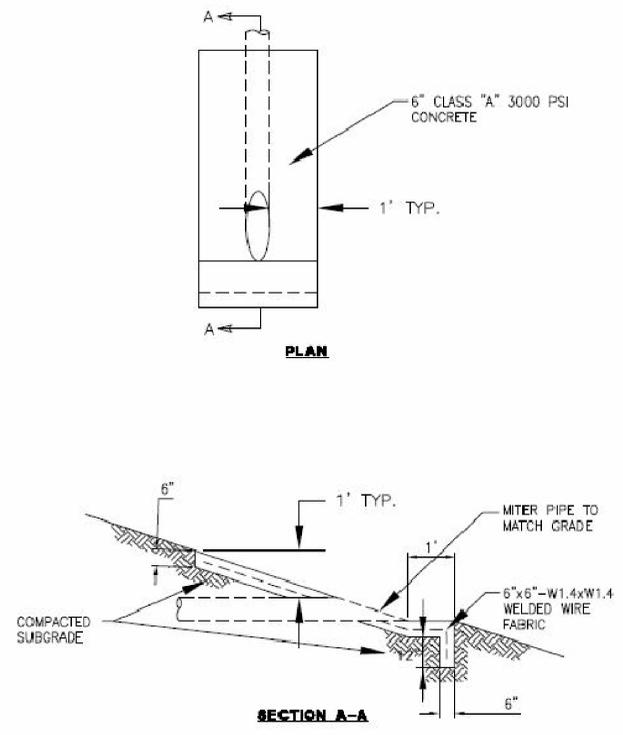


5 CENTERING DEVICE CONSTRUCT AS NEEDED FOR INSTALLATION (NTS)

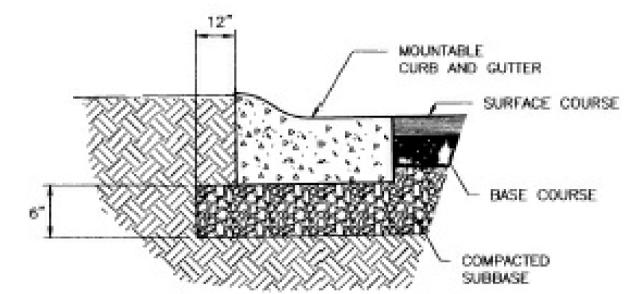
Revisions		Date	 NATIONAL CEMETERY ADMINISTRATION		Drawing Title <b>DRAINAGE DETAILS</b>	Project Title <b>SUBSURFACE UNDERDRAIN</b>	Date 03/29/2017	
					Approved: Division Chief	Building Number *****	Checked CFC	Project No. 844-17-201
					Approved: Service Director	Location <b>FORT GIBSON NATIONAL CEMETERY</b>	DRAWING NO. <b>L-201</b>	Dwg. 5 Of 6



**1 24' TYPICAL ROAD SECTION (CURB AND GUTTER BOTH SIDES)**  
NOT TO SCALE

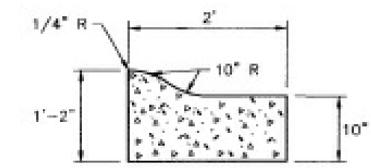


**2 HEADWALL FOR SMALL DRAIN PIPE**  
N.T.S.



**PROFILE**

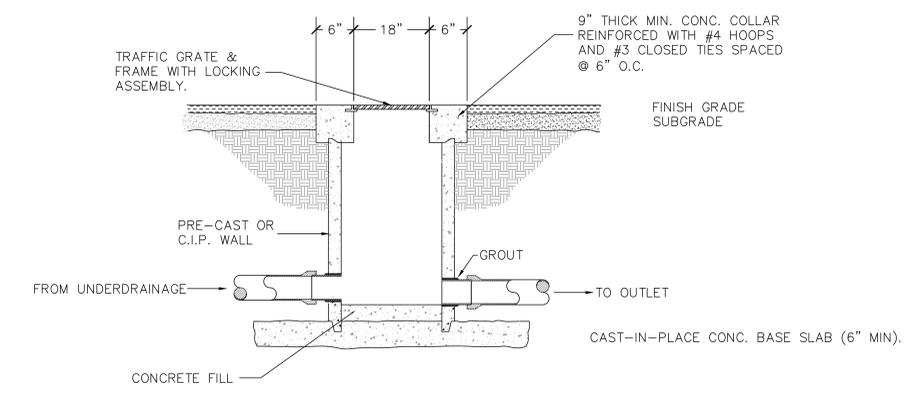
- NOTE:
1. CONCRETE FOR CURB AND GUTTER SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
  2. WHERE PROPOSED CURB & GUTTER IS TO BE CONNECTED TO EXIST. CURB & GUTTER OR TO CURB INLET, IT SHOULD BE DONE AT THE EXIST. GUTTER FLOW LINE ELEVATION.
  3. 1/2" PREMOULDED EXPANSION JOINT MATERIAL SHALL BE INSTALLED WHERE CONC. CURB & GUTTER ADJUTS CONC. SIDEWALK, CONCRETE CURB, CONCRETE INLETS, BRIDGE WINGWALLS, BRIDGE ABUTMENTS, POINT OF TANGENT, POINT OF CURVATURE, POINT OF CHANGE IN CURVATURE AND/OR ANY OTHER LOCATIONS SPECIFIED BY THE ENGINEER. MAX. SPACING = 10'



NOTE:  
CROSS SLOPE OF GUTTER SAME AS PAVEMENT

**MOUNTABLE CURB CROSS SECTION DIMENSIONS**

**3 MOUNTABLE CURB AND GUTTER DETAIL**  
NOT TO SCALE



- NOTE:
1. MINIMUM WALL THICKNESS IS 6" FOR CAST-IN-PLACE CONC.
  2. REINFORCE CAST-IN-PLACE CONC. WALLS WITH #4 BARS AT 12" O.C. EACH WAY WITH 2" MIN COVER FROM INSIDE FACE.
  3. D IS 24" UNLESS OTHERWISE NOTED.

**4 AREA DRAIN / JUNCTION BOX, LAWN AREA**  
N.T.S.

Revisions	Date	 NATIONAL CEMETERY ADMINISTRATION	Drawing Title <b>ROADWAY &amp; STORM STRUCTURE DETAILS</b>	Project Title <b>SUBSURFACE UNDERDRAIN</b>	Date <b>03/29/2017</b>
			Approved: Division Chief	Building Number .....	Checked .....
			Approved: Service Director	Location <b>FORT GIBSON NATIONAL CEMETERY</b>	DRAWING NO. <b>L-202</b> Dwg. 6 Of 6