



**US Army Corps
of Engineers** ®
Fort Worth District

Public Notice

Applicant: City of Denton

Project No.: SWF-2012-00414

Date: June 3, 2013

The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

Section 10

The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate *all work or structures in or affecting the course, condition or capacity of navigable waters of the United States*. The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

Section 404

The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the *discharge of dredged and fill material into all waters of the United States, including wetlands*. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

Contact

Name: Mr. Eric Dephouse, Project Manager

Phone Number: 817-886-1820

JOINT PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT

AND

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUBJECT: Application for a Department of the Army Permit under Section 404 of the Clean Water Act (CWA) and for water quality certification under Section 401 of the CWA to discharge dredged and fill material into waters of the United States associated with Bonnie Brae Roadway Improvements in the city of Denton, Denton County, Texas.

APPLICANT: City of Denton

APPLICATION NUMBER: SWF-2012-00414

DATE ISSUED: June 3, 2013

LOCATION: The proposed roadway improvements would be located in the city of Denton, beginning at Vintage Road and continuing northward to US I-35E. The proposed project would be located approximately at UTM coordinates 671356.567328273 East and 3675571.5351432 North (Zone 14) on the Denton West, Texas 7.5-minute USGS quadrangle map in the USGS Hydrologic Unit 12030103.

OTHER AGENCY AUTHORIZATIONS: State Water Quality Certification

PROJECT DESCRIPTION: The applicant proposes to discharge approximately 500 cubic yards of dredged and fill material into approximately 0.55 acres of waters of the United States in conjunction with the construction of Bonnie Brae Roadway Improvements. Total proposed impacts to waters of the U.S. would be 0.02 acre of forested wetlands, 0.53 acre of emergent wetlands, and 533 linear feet (0.08 acre) of intermittent stream.

The proposed Bonnie Brae roadway improvement project would occur within an approximately 2.75-mile north-south corridor with five defined crossings of waters of the U.S. The southernmost crossing, Crossing 1, would permanently impact 0.02 acre of forested wetlands associated with construction of approach ramps for a bridged crossing. This crossing would be evaluated under Nationwide Permit 14 for Linear Transportation Projects. Moving north, Crossing 2 would involve the spanning of a perennial stream without impacts; therefore a permit is not required for this crossing. Crossing 3, located approximately 0.15 mile south of the K.C.S. Railroad crossing, would result in the loss of 250 linear feet (0.03 acre) of intermittent stream channel due to the installation of box culverts. This crossing would be evaluated under Nationwide Permit 14 for Linear Transportation Projects. Crossing 4, at the northern end of the project corridor, would result in the loss of 283 linear feet (0.05 acre) of intermittent stream channel due to the installation of box culverts. Crossing 5, the northernmost crossing for the project and located immediately adjacent to Crossing 4, would result in 0.53 acre of impacts to emergent wetlands. Crossings 4 and 5 would not qualify for a nationwide permit and would be evaluated under an individual permit.

The proposed project is located within the City of Denton, beginning at Vintage Road and running northward to US I-35E. The project is located within a rural area. The surrounding land use consists primarily of agricultural facilities and rural single-family residences. The project limits cross four jurisdictional waterways.

Land use in the surrounding area is primarily rural agricultural establishments and residences. The recently constructed, University of North Texas stadium is located on Bonnie Brae at the southwest corner of Bonnie Brae and US 1-35E. The relocation of the stadium has increased traffic patterns on Bonnie Brae significantly. Vegetation within the easement alignment consists of primarily of Bermuda grass and other pasture grasses in upland areas and a dominance of hydrophytic vegetation in wetlands and in vegetated reaches along the channels.

Temporary impacts would be minimized by implementation of BMP's during construction. Excavation would be conducted when water surface elevation is normal or low, and proper erosion and sediment control would be implemented to further minimize water quality impacts. The contractor would conduct the work within the established construction limits to minimize the impact to the area's vegetation. Stabilization of exposed soils would be conducted at the earliest practicable date.

TABLE 1. Proposed Impacts to Waters of the U.S.

Crossing	Proposed Permit Type	Aquatic Type Impacted	Permanent		Temporary		Mitigation Required
			Acres	LF	Acres	LF	
1	NWP 14	Forested Wetlands	0.02	-	-	-	No
2	No Permit Required	None	-	-	-	-	
3	NWP 14	Intermittent Stream	.03	250	-	-	No
4	Individual Permit	Intermittent Stream	.05	283	-	-	Yes
5		Emergent Wetlands	.53	1544	-	-	Yes
		Total:	.63	2077	0.0	0.0	

ALTERNATIVE SITE LOCATIONS AND ALTERNATIVE LAYOUTS:

Alternative 1: No-Build Alternative. Under the No-Build Alternative, the roadway would continue in its current configuration. Considerable traffic pressure would continue to increase on the two-lane road from use of the new University of North Texas stadium, as well as from new development to the south of the stadium. In addition, Bonnie Brae Street has been designated a major arterial roadway in the City of Denton Thoroughfare Plan. The need to widen the road to the proposed standards in the Thoroughfare Plan has arrived as the funding for it has become available from various funding sources. Therefore, the No-Build Alternative was not deemed to be practicable.

Alternative 2: Applicant's Preferred Alternative. The proposed project involves construction of a four-lane corridor based on the City of Denton Thoroughfare Plan. This configuration would result in a design which adequately meets the city's future projected use of the corridor. The four-lane corridor design was chosen as the Applicant's Preferred Alternative.

Alternative 3: Alternative Sites. Alternative sites were not evaluated. The project involves improvements to an existing linear corridor. Therefore, alternative locations were not considered.

Alternative 4: Alternative Configurations. Alternative configurations were explored, including a wider roadway corridor with more lanes. However, based on land use constraints and the City of Denton Thoroughfare Plan, the proposed project was determined to be the most reasonable for the city to address traffic flow in this area.

COMPENSATORY MITIGATION: The City of Denton proposes to compensate for the loss of aquatic functions associated with the waters of the U.S. through the purchase of mitigation banking credits from the Trinity River Mitigation Bank.

PUBLIC INTEREST REVIEW FACTORS: This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b)(1) of the CWA. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concerns for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including its cumulative effects. Among the factors addressed are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE in determining whether to issue, issue with modifications, or conditions, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

STATE WATER QUALITY CERTIFICATION: This project incorporates the requirements necessary to comply with the Texas Commission on Environmental Quality's (TCEQ) Tier I project criteria. Tier I projects are those that result in a direct impact of three acres or less of waters of the State or 1,500 linear feet of streams (or a combination of the two is below the threshold) for which the applicant has incorporated best management practices (BMPs) and other provisions designed to safeguard water quality. The USACE has received a completed checklist and signed statement fulfilling Tier I criteria for the project. Accordingly, a request for 401 certification is not necessary and there will be no additional TCEQ review.

ENDANGERED AND THREATENED SPECIES: The USACE has reviewed the U.S. Fish and Wildlife Service's latest published version of endangered and threatened species to determine if any may occur in the project area. The proposed project would be located Denton County where the whooping crane (*Grus americana*), least tern (*Sterna antillarum*), and piping plover (*Charadrius melodus*) are known to occur or may occur as migrants. The whooping crane (*Grus americana*) and least tern (*Sterna antillarum*) are listed as endangered, and the piping plover (*Charadrius melodus*) is listed as threatened. Our initial review indicates that the proposed work would have no effect on federally-listed endangered or threatened species.

NATIONAL REGISTER OF HISTORIC PLACES: The area of the proposed development has been surveyed for the presence of historic and prehistoric sites. A single small prehistoric site was identified and a formal report on its location and assessment is pending review by the SHPO and USACE. It is currently unknown if this site is eligible for inclusion in the National Register of Historic Places. If the site is eligible, avoidance, protection, or treatment measures may be necessary. Additional buried sites may be present in the area and could potentially be impacted by construction.

FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review all proposed development to determine if a floodplain development permit is required and maintain records of such review.

SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to assist in developing fact upon which a decision by the USACE may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

PUBLIC HEARING: Prior to the close of the comment period any person may make a written request for a public hearing setting forth the particular reasons for the request. The District Engineer will determine whether the issues raised are substantial and should be considered in his permit decision. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before July 3, 2013, which is the close of the comment period. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to Mr. Eric Dephouse; Regulatory Branch, CESWF-PER-R; U. S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102-0300. You may visit the Regulatory Branch in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Telephone inquiries should be directed to (817) 886-1820. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

DISTRICT ENGINEER
FORT WORTH DISTRICT
CORPS OF ENGINEERS



LOCATION MAP



1506 Audrey Drive
Garland, Texas
75040
(972) 496-4701
(972) 414-0451 fax

BONNIE BRAE INDIVIDUAL PERMIT DENTON, TEXAS

Job No. 022-02005

September 2012

Sheet 1 of 16



AERIAL PHOTOGRAPHY SHEET 1



1506 Audrey Drive
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(972) 414-0451 fax

BONNIE BRAE
INDIVIDUAL PERMIT
DENTON, TEXAS

Job No. 022-02005

September 2012

Sheet 2 of 16



AERAIL PHOTOGRAPHY SHEET 2



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BONNIE BRAE
INDIVIDUAL PERMIT
DENTON, TEXAS

Job No. 022-02005

September 2012

Sheet 3 of 16



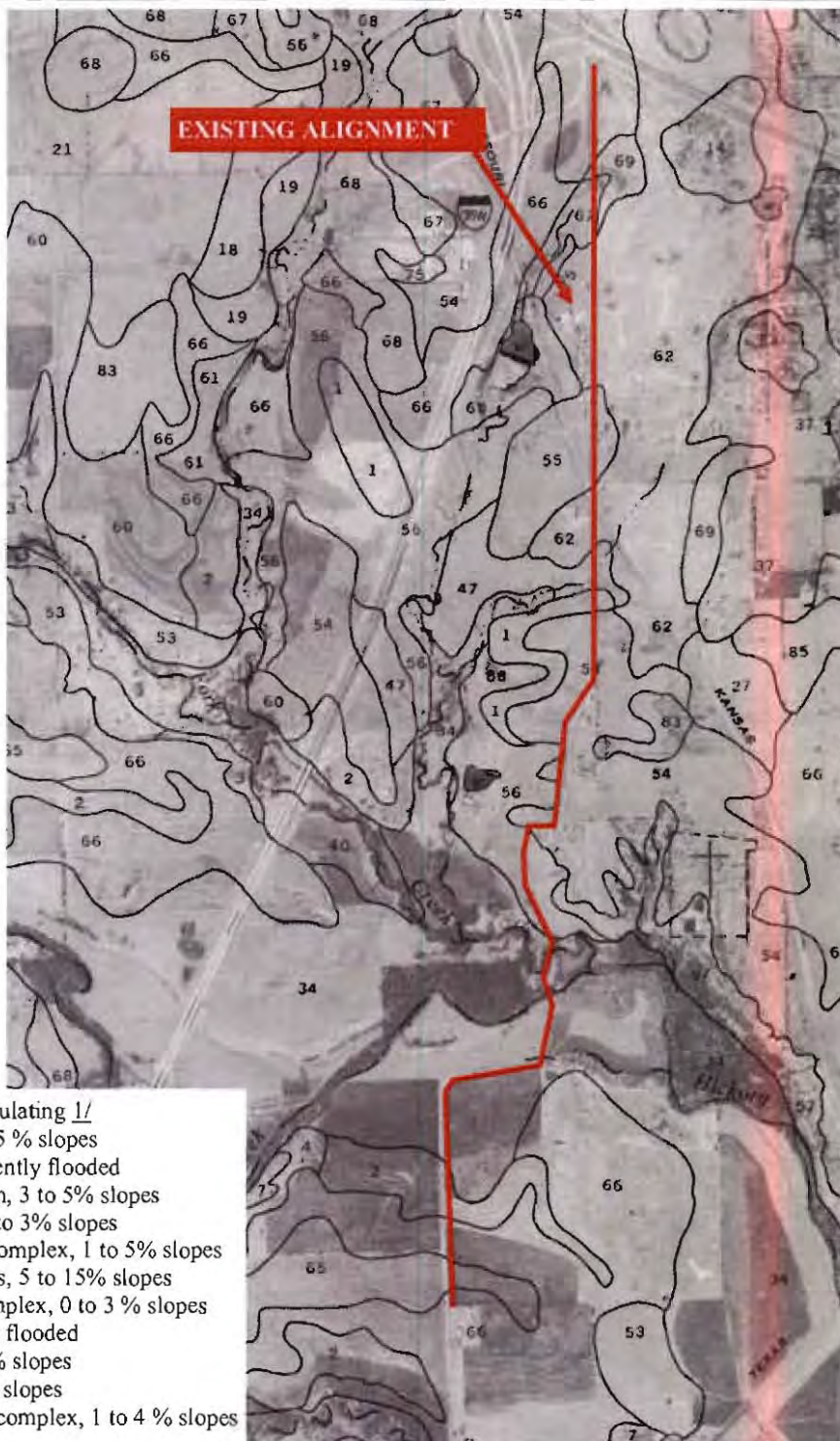
1506 Audrey Drive
Garland, Texas
75040
(972) 496-4701
(972) 414-0451 fax

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Job No. 022-02005

September 2012

Sheet 4 of 16



DENTON COUNTY SOIL SURVEY (1980)



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**BONNIE BRAE
 INDIVIDUAL PERMIT
 DENTON, TEXAS**

Job No. 022-02005

September 2012

Sheet 5 of 16



NFIP

FIRM

FLOOD INSURANCE RATE MAP
DENTON COUNTY,
TEXAS
AND INCORPORATED AREAS

PANEL 370 OF 750
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COMPANY	ADDRESS	PHONE	FAX
AMERICAN FLOOD INSURANCE CO.	48121C0370G	817-251-1234	817-251-1234
DENTON COUNTY	48121C0370G	817-251-1234	817-251-1234
DENTON CITY OF	48121C0370G	817-251-1234	817-251-1234

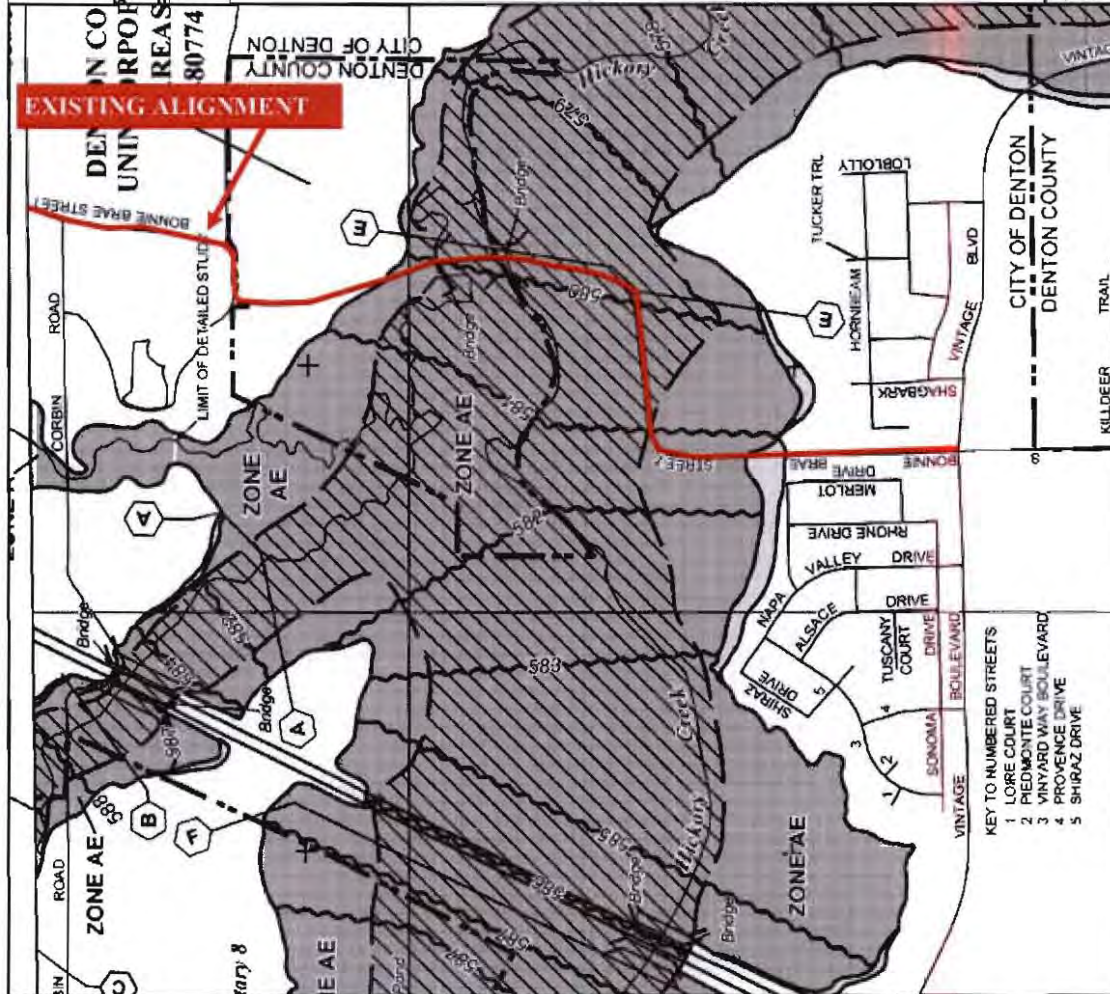
MAP NUMBER
48121C0370G

MAP REVISED
APRIL 16, 2011

Federal Emergency Management Agency

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on reference applications for the subject community.

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM On-Line. This map does not reflect changes or amendments which may have been made subsequent to the issue on the site block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



FEMA FIRM FLOODPLAIN MAP 48121C0370G



1506 Audrey Drive
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DENTON, TEXAS

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September 2012

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EXISTING ALIGNMENT

NATIONAL WETLANDS INVENTORY MAP



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BONNIE BRAE INDIVIDUAL PERMIT DENTON, TEXAS

Job No. 022-02005

September 2012

Sheet 8 of 16



Crossing 1—Wetland excavation 800 sf.
3 Piers 48 sf.
Total impact 848 sf (0.02 ac.)



- LEGEND**
- FEMA 100-YR FLOODPLAIN
 - CREEK FLOWLINE
 - FEMA FLOODWAY
 - FEMA 500-YR FLOODPLAIN

CITY OF DENTON, TEXAS DENTON COUNTY OF DENTON, TEXAS		
U.S.A.C.E. EXHIBIT		
BONNIE BRAE STREET FROM U.S. HIGHWAY 377 TO I-435 E		
 Graham Associates, Inc. CONSULTING ENGINEERS & PLANNERS 1100 W. HICKORY STREET, SUITE 100 DENTON, TEXAS 76201-1100 (940) 382-1100		
DRAWN BY: JAP	PROJECT NO.: 00-000	SHEET 1 OF 3
DATE: 02/08/11		

JOB NUMBER 22-02005

MARCH 2011

SHEET 9 OF 16



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Garland, Texas 75040
(972) 496-4701
(972) 414-0451 fax

BONNIE BRAE STREET
JURISDICTIONAL DETERMINATION
IMPACT ANALYSIS
DENTON, DENTON COUNTY, TEXAS



Crossing 2—1,200 ft. span of perennial channel (no Impact)
 Crossing 3—250 ft intermittent channel

- LEGEND**
- FEMA 100-YR FLOODPLAIN
 - CREEK FLOWLINE
 - FEMA FLOODWAY
 - FEMA 500-YR FLOODPLAIN

CITY OF DENTON, TEXAS COUNTY OF DENTON, TEXAS	
U.S.A.C.E. EXHIBIT	
BONNIE BRAE STREET FROM U.S. HIGHWAY 577 TO I-435 E	
 GRAHAM ASSOCIATES, INC. CONSULTING ENGINEERS & PLANNERS 1000 W. HICKORY STREET, SUITE 200 DENTON, TEXAS 76201-1000	
DESIGNED BY: JAY	DRAWN BY: JAY
CHECKED BY: JAY	PROJECT NO.: 060000
DATE: 10/01/10	SHEET: 2 OF 3
	2

JOB NUMBER 22-02005

MARCH 2011

SHEET 10 OF 16

 **Symonds Ecology**
 1506 Audrey Drive
 Garland, Texas 75040
 (972) 496-4701
 (972) 414-0451 fax

BONNIE BRAE STREET
 JURISDICTIONAL DETERMINATION
 IMPACT ANALYSIS
 DENTON, DENTON COUNTY, TEXAS





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BONNIE BRAE STREET
JURISDICTIONAL DETERMINATION
IMPACT ANALYSIS
DENTON, DENTON COUNTY, TEXAS

JOB NUMBER 22-02005	
MARCH 2011	
SHEET 11 OF 16	



CITY OF DENTON, TEXAS
DENTON COUNTY OF DENTON, TEXAS



U.S.A.C.E. EXHIBIT

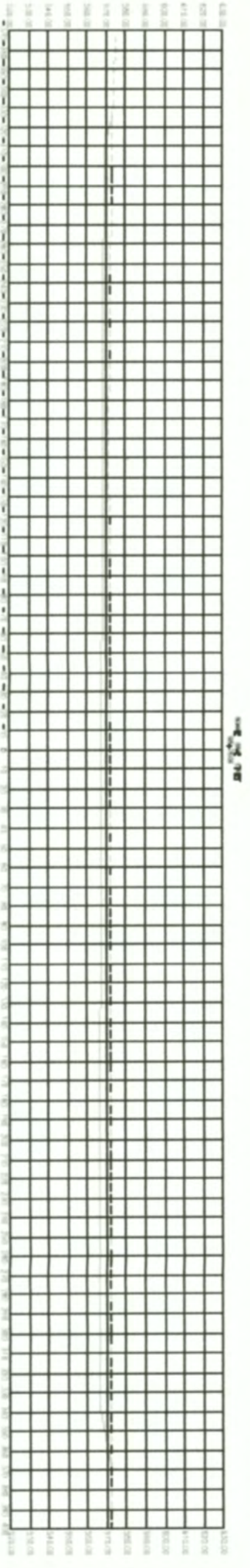
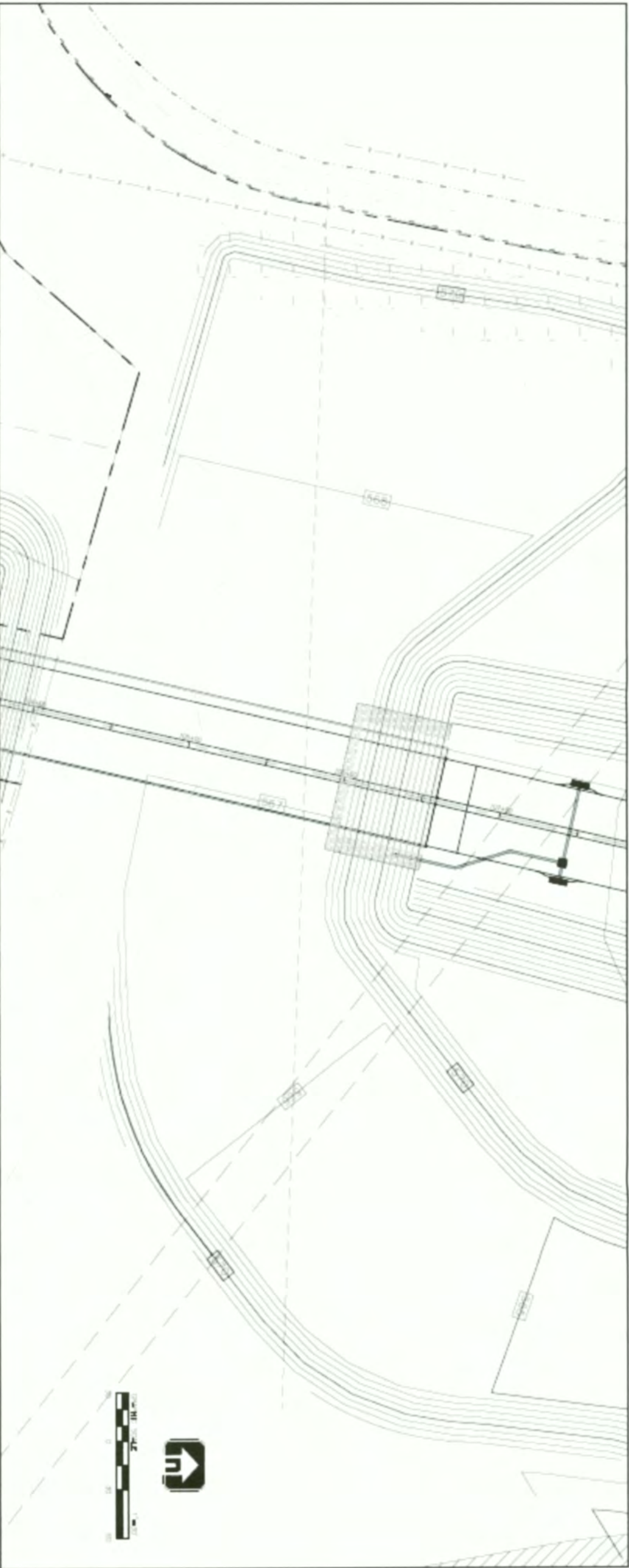


BONNIE BRAE STREET
FROM U.S. HIGHWAY 377 TO I.H. 35 E




Osborn Associates, Inc.
3000 THE STRAIGHT LINE
SUITE 200 DENTON, TEXAS 76201
(972) 382-1100

DESIGNED BY: JAP	PROJECT NO.: 22-02005	SHEET
DRAWN BY: JAP	SHEET 3 OF 3	3



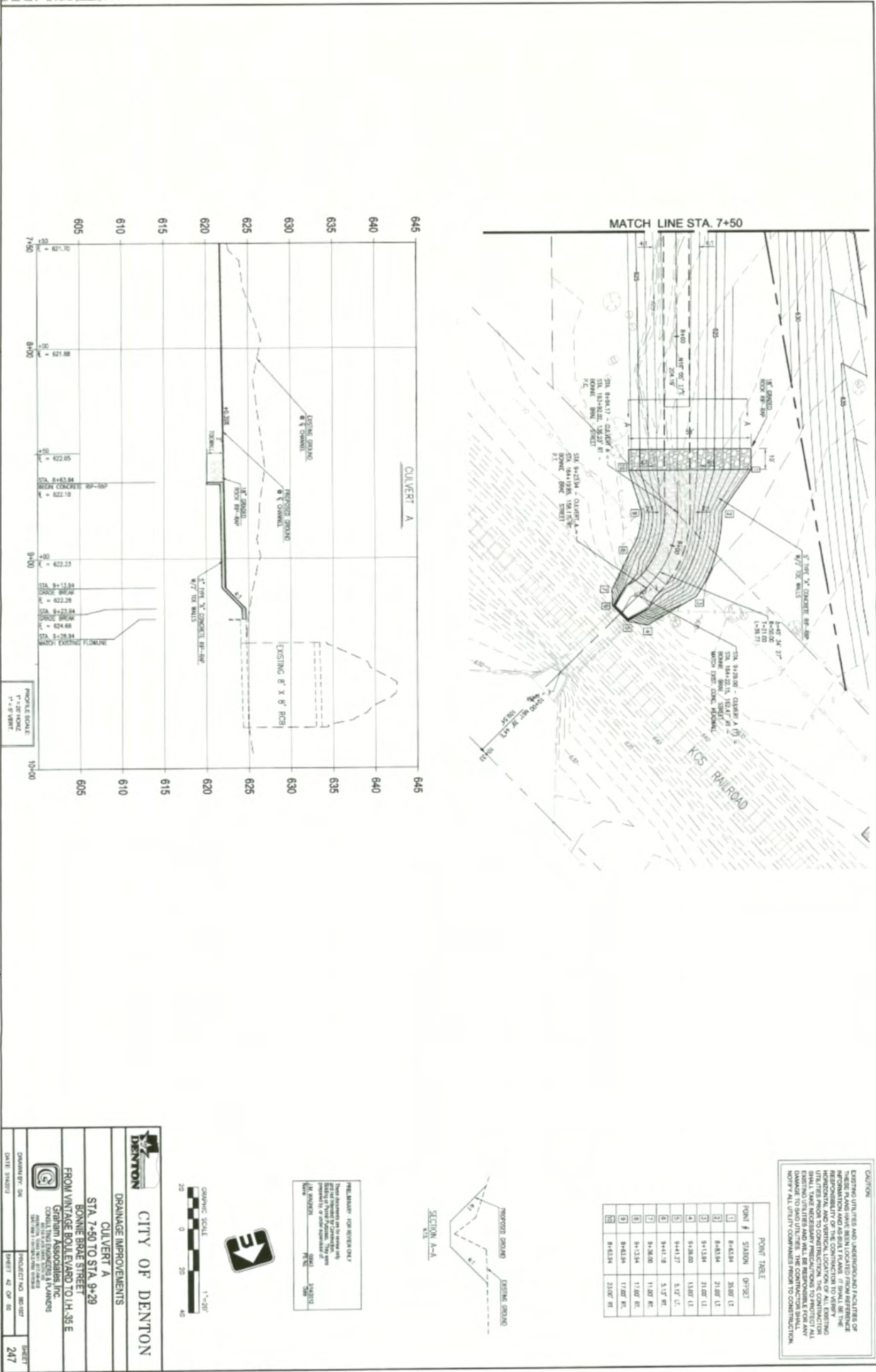
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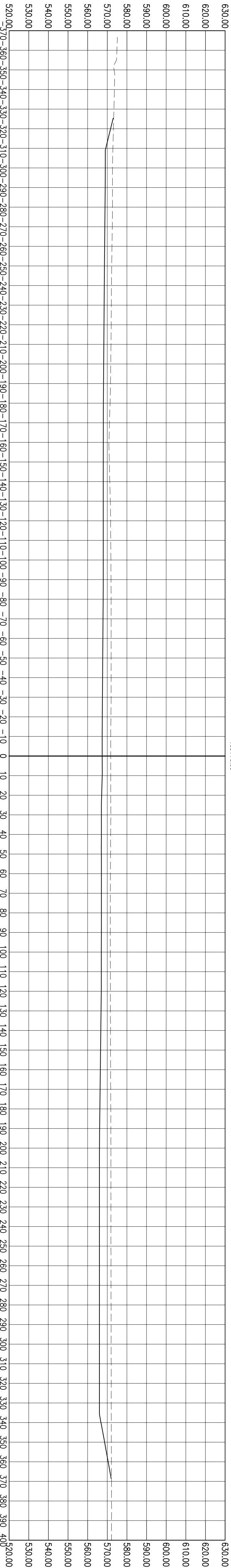
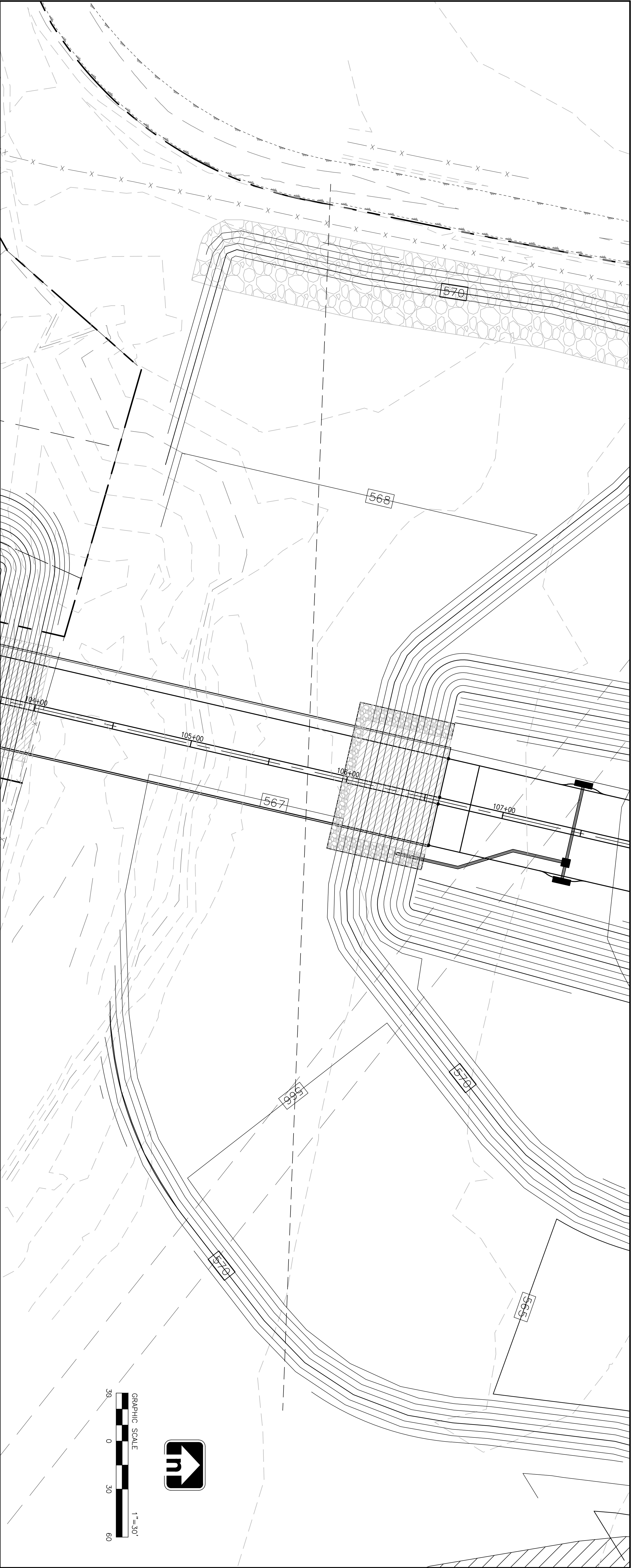


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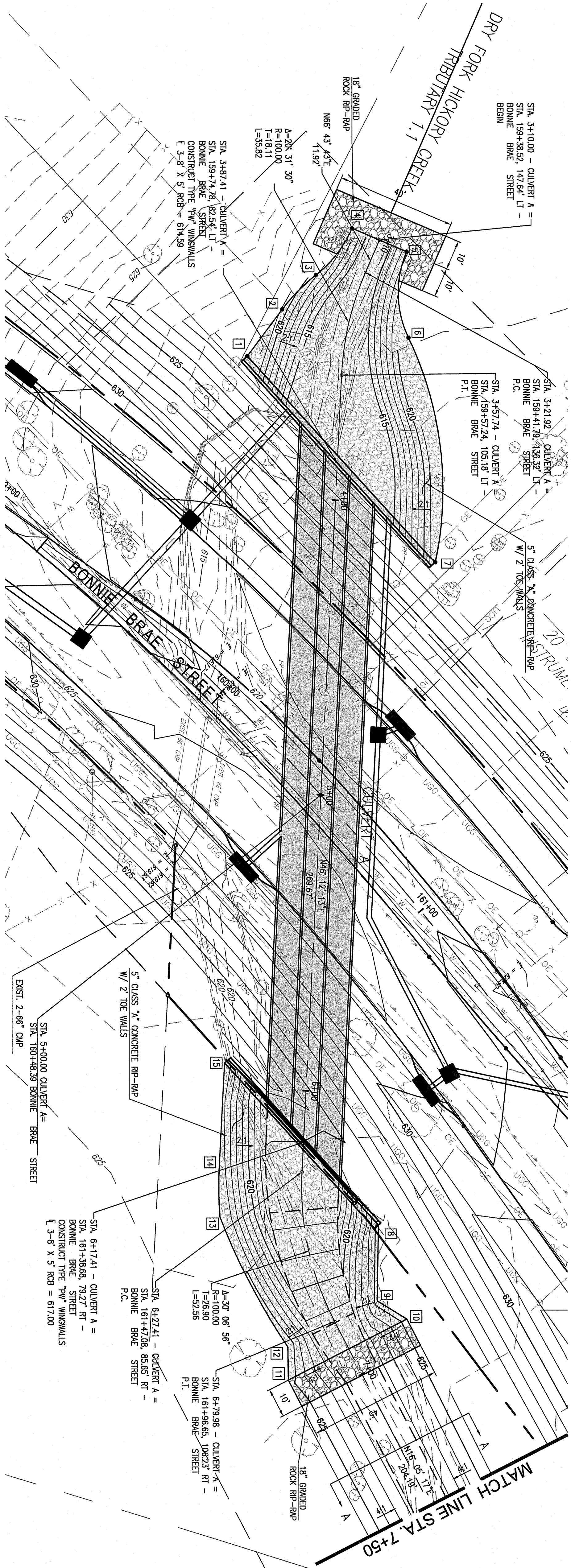
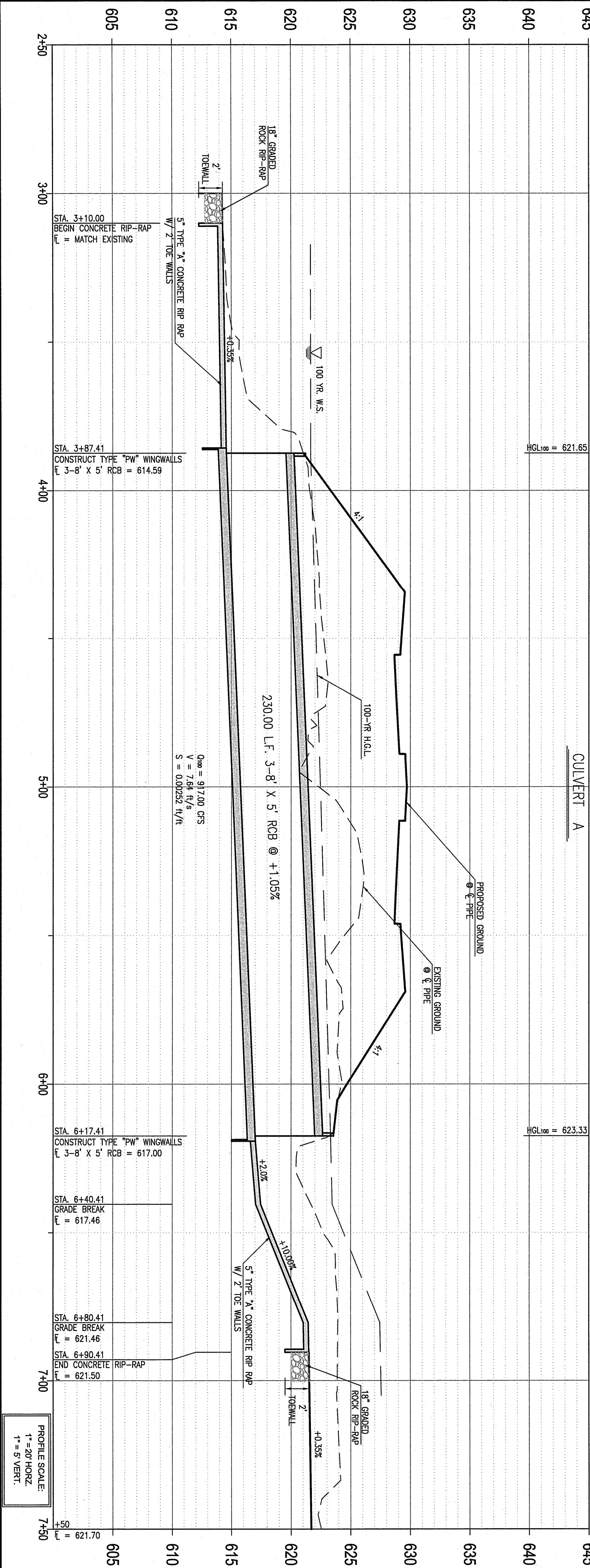
BONNIE BRAE STREET
JURISDICTIONAL DETERMINATION
IMPACT ANALYSIS
DENTON, DENTON COUNTY, TEXAS

JOB NUMBER 22-02005
MARCH 2011
SHEET 12 OF 16



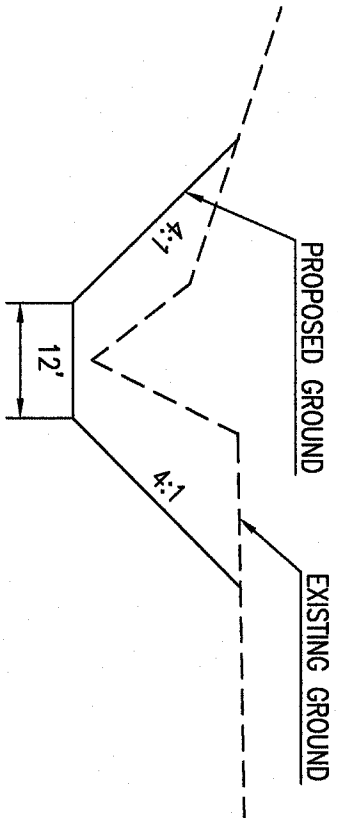


PROFILE SCALE:
1" = 30' HORIZ.
1" = 30' VERT.



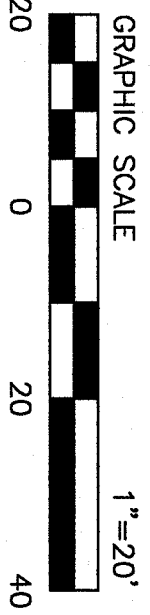
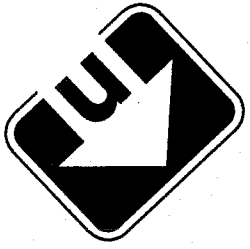
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2	3+40.34	22.93' RT.
3	3+28.38	15.24' RT.
4	3+10.00	10.00' RT.
5	3+10.00	10.00' LT.
6	3+40.27	20.68' LT.
7	4+19.53	34.59' LT.
8	6+49.79	24.81' LT.
9	6+80.41	16.00' LT.
10	6+90.41	22.00' LT.
11	8+90.41	23.00' RT.
12	6+80.41	16.00' RT.
13	6+40.41	28.00' RT.
14	6+27.41	28.00' RT.
15	5+91.89	28.00' RT.

CAUTION:
 EXISTING UTILITIES AND UNDERGROUND FACILITIES OF THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION AND AS-BUILT PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES AND WILL BE RESPONSIBLE FOR ANY DAMAGE TO SAID UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION.



SECTION A-A
N.T.S.

PRELIMINARY - FOR REVIEW ONLY
 These documents are for review only and are not intended for Construction, Bidding or Permit Purposes. They were prepared by, or under supervision of:
 J.M. WAGSON
 59643
 P.E. No. 3182012
 Date



CITY OF DENTON

DRAINAGE IMPROVEMENTS

CULVERT A

STA. 3+10 TO STA. 7+50

BONNIE BRAE STREET

FROM VINTAGE BOULEVARD TO I.H. 35 E

Graham Associates, Inc.

CONSULTING ENGINEERS & PLANNERS

ARLINGTON, TEXAS 76011 (817) 344-8838

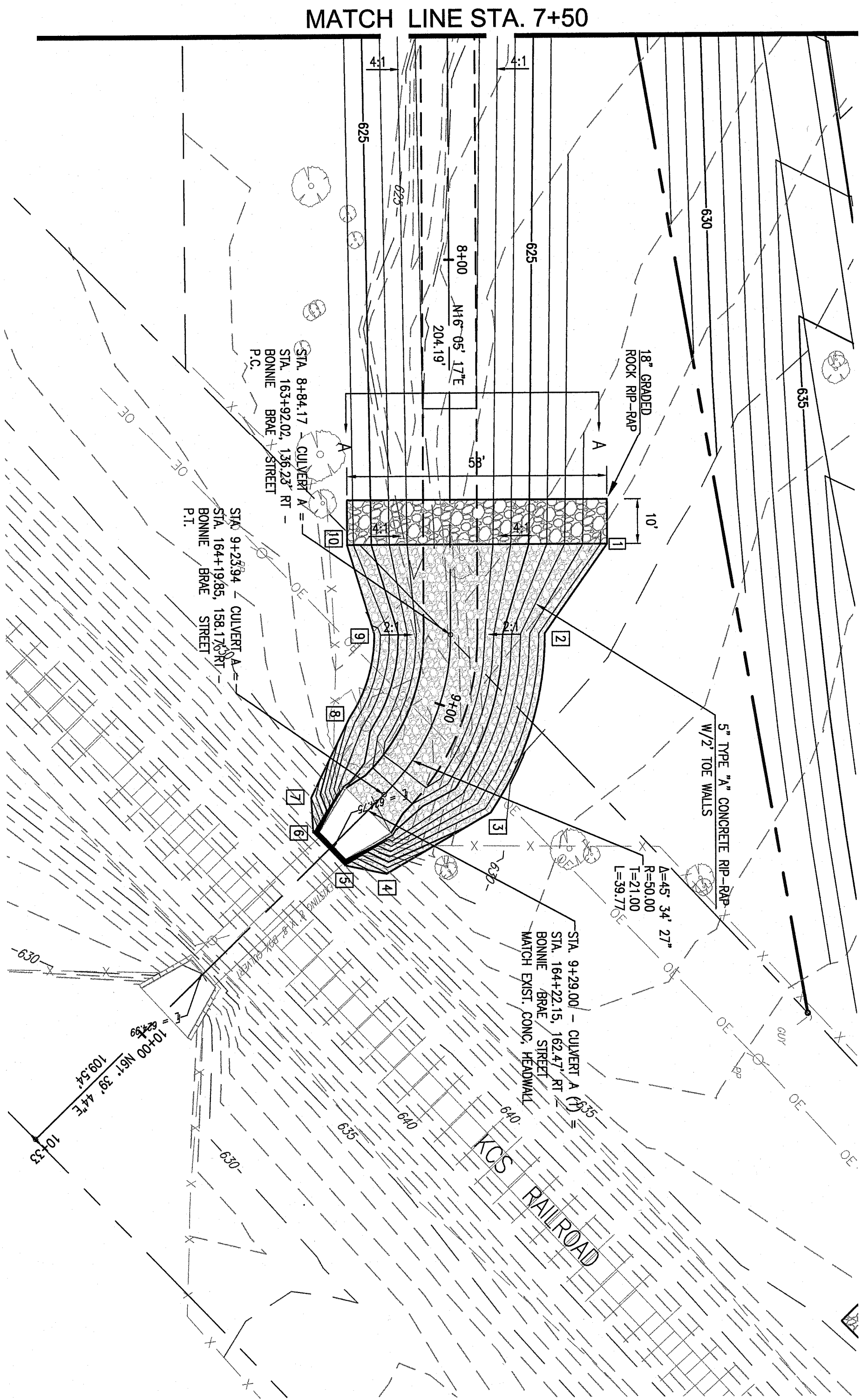
TITLE BLOCK: F-1 (REVISED) 5/18/10 10/10/10

DRAWN BY: GAI

DATE: 3/18/2012

PROJECT NO. 980-1007

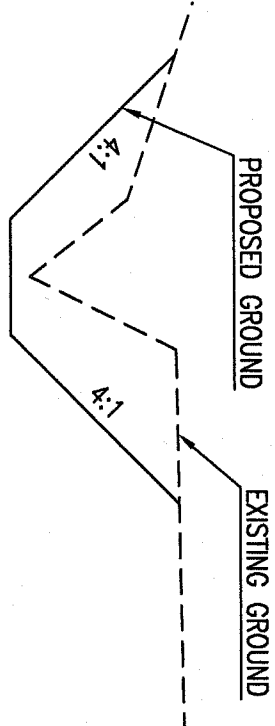
SHEET **246**



MATCH LINE STA. 7+50

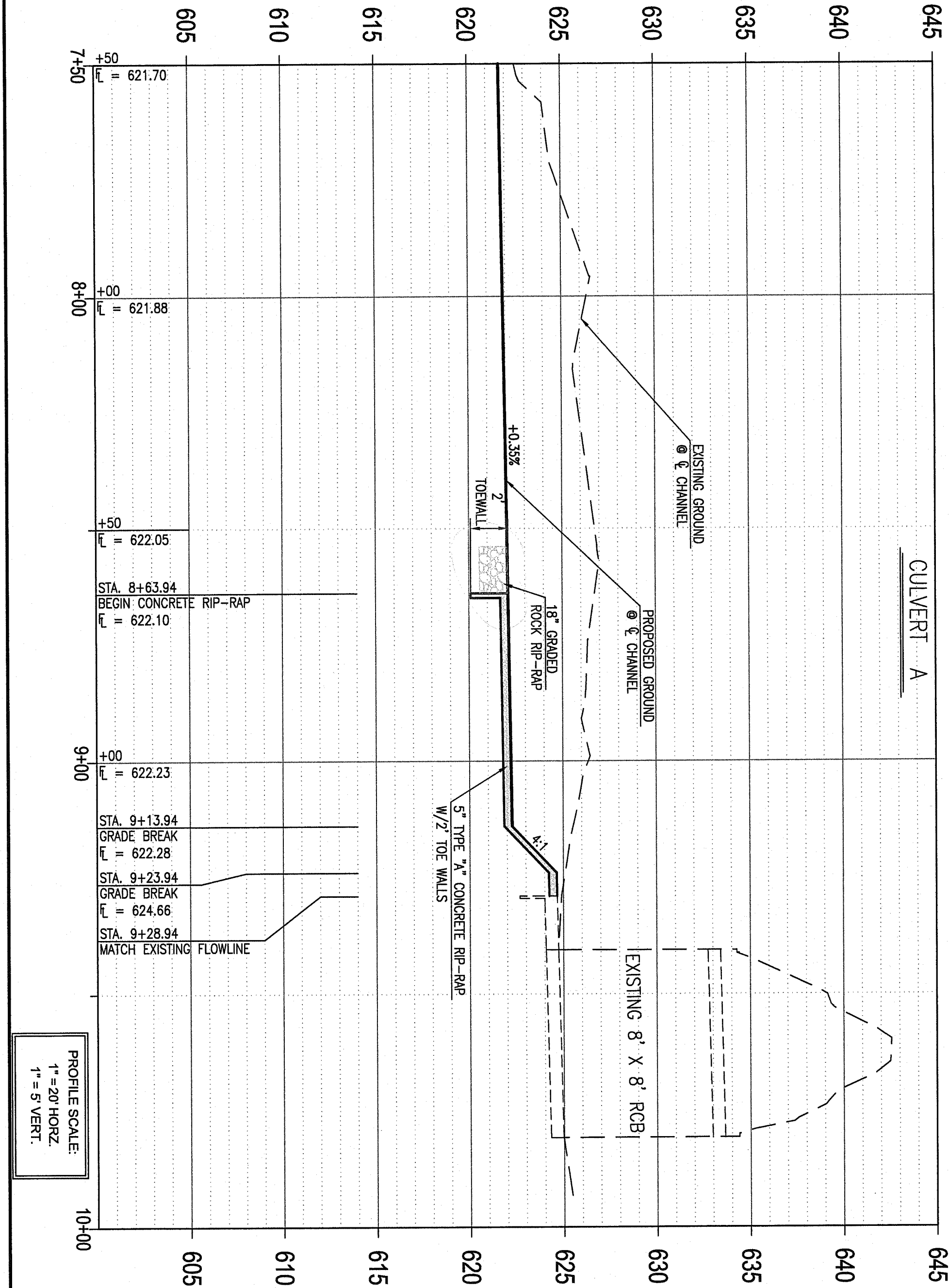
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2	8+83.94	21.00' LT.
3	9+13.94	21.00' LT.
4	9+36.00	13.00' LT.
5	9+41.27	5.12' LT.
6	9+41.18	5.13' RT.
7	9+36.00	11.00' RT.
8	9+13.94	17.00' RT.
9	8+83.94	17.00' RT.
10	8+63.94	23.00' RT.

CAUTION:
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SECTION A-A
N.T.S.

PRELIMINARY - FOR REVIEW ONLY
 These documents are for review only and not intended for construction. No liability shall be assumed for any errors or omissions. The user of these documents shall be responsible for obtaining all necessary permits and approvals. The user of these documents shall be responsible for any damage to property or persons caused by the use of these documents. The user of these documents shall be responsible for any damage to property or persons caused by the use of these documents.



CULVERT A

EXISTING GROUND
PROPOSED GROUND

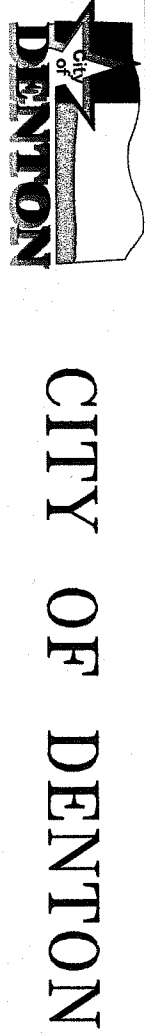
EXISTING CHANNEL
PROPOSED CHANNEL

EXISTING 8' X 8' RCJ

18' GRADED ROCK RIP-RAP
5' TYPE "A" CONCRETE RIP-RAP
W/2 TOE WALLS

STA. 8+63.94
 BEGIN CONCRETE RIP-RAP
 STA. 9+13.94
 GRADE BREAK
 STA. 9+23.94
 GRADE BREAK
 STA. 9+28.94
 MATCH EXISTING FLOWLINE

PROFILE SCALE:
 1"=20' HORIZ.
 1"=5' VERT.



DRAINAGE IMPROVEMENTS

CULVERT A

STA. 7+50 TO STA. 9+29

BONNIE BRAE STREET

FROM VINTAGE BOULEVARD TO I.H.-35 E

Graham Associates, Inc.



CONSULTING ENGINEERS & PLANNERS

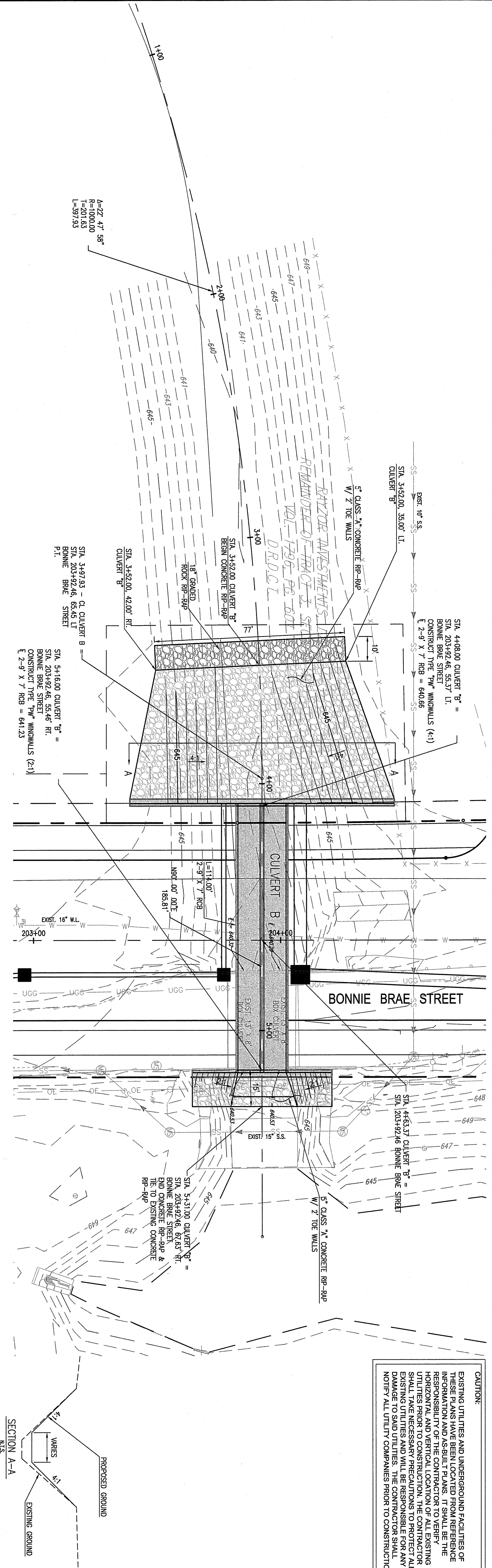
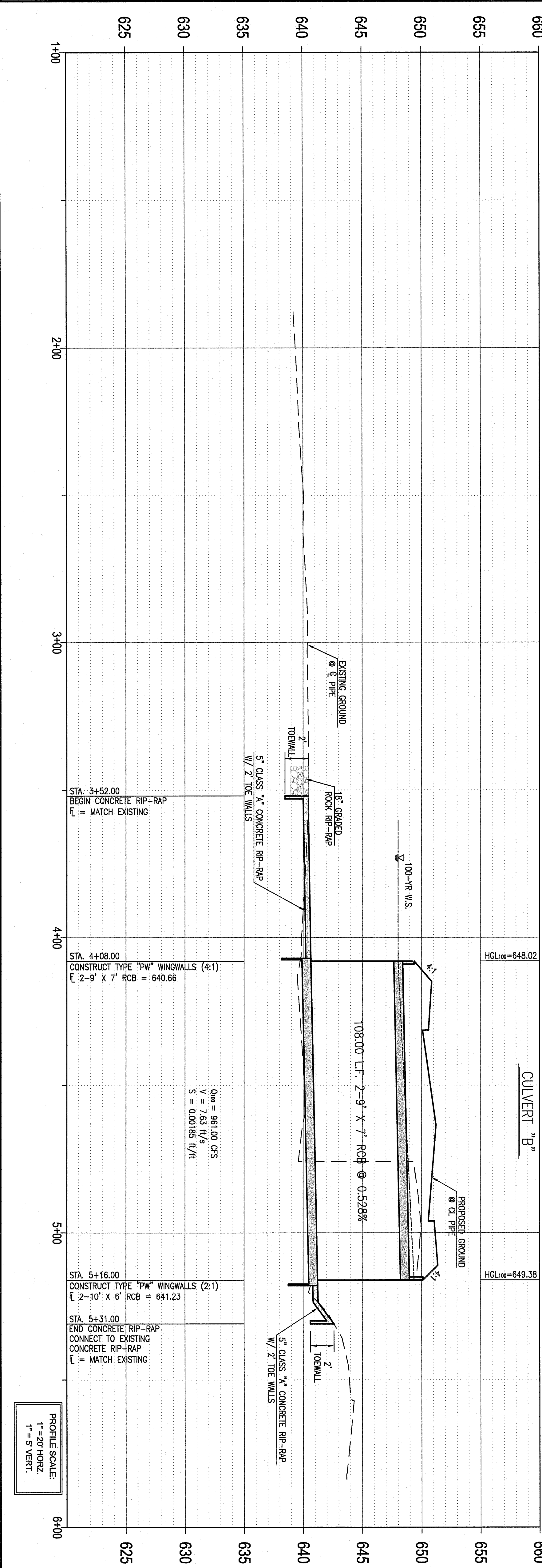
DRAWN BY: GAI

DATE: 3/14/2012

PROJECT NO. 960-1007

SHEET 42 OF 50

247



CAUTION:
 EXISTING UTILITIES AND UNDERGROUND FACILITIES OF THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION AND AS-BUILT PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES AND WILL BE RESPONSIBLE FOR ANY DAMAGE TO SAID UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION.



PRELIMINARY - FOR REVIEW ONLY
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 Name: J.M. WASHINGTON
 PE No.: 59943
 Date: 3/16/2012

CITY OF DENTON
 DRAINAGE IMPROVEMENTS
 CULVERT B
 STA. 3+52 TO STA. 5+31
 BONNIE BRAE STREET
 FROM VINTAGE BOULEVARD TO I.H. 35 E
 Graham Associates, Inc.
 CONSULTING ENGINEERS & PLANNERS
 ARADON, TEXAS 78011 (817) 340-8555
 TIRE FIRM: 1-1877-815 FIRM: 7058-90

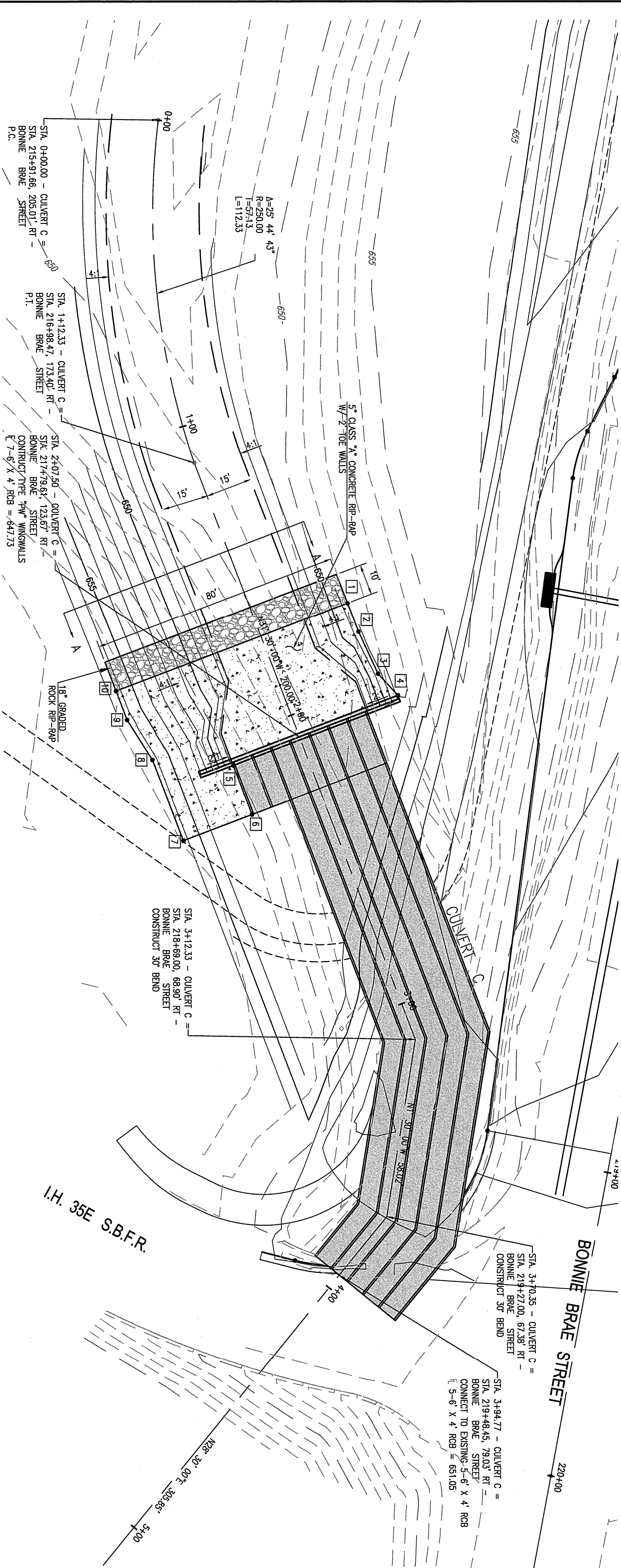
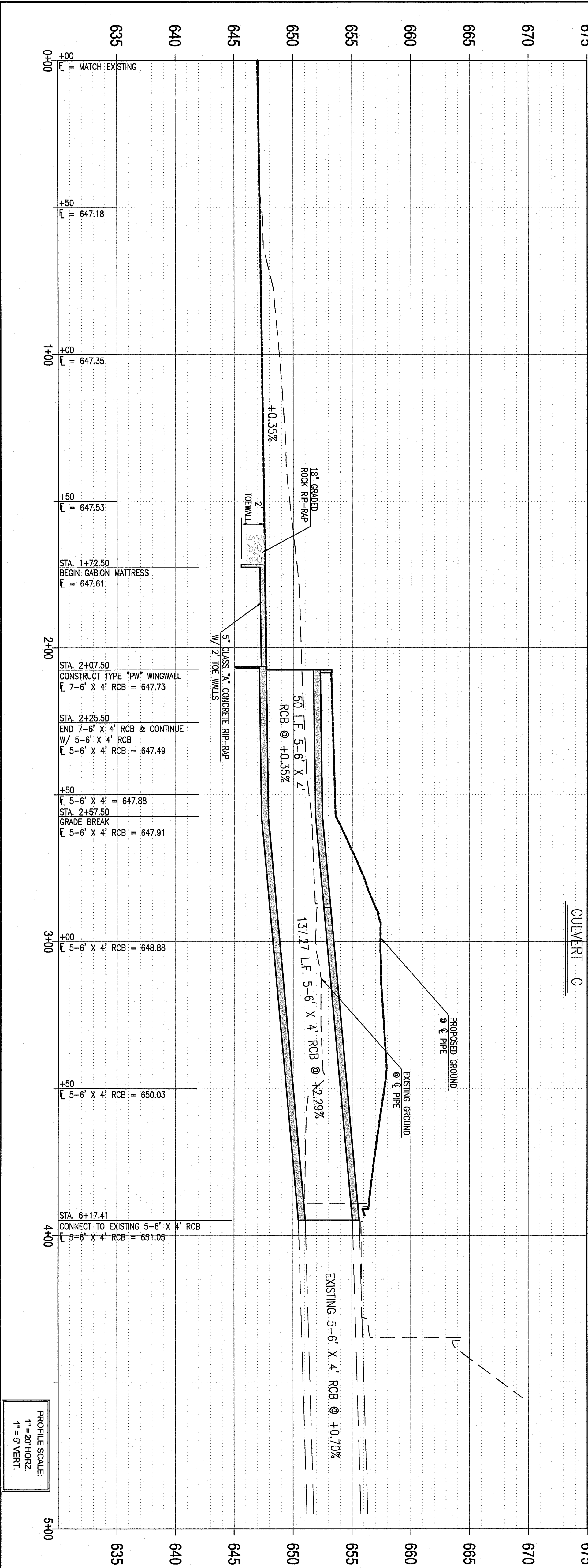
DRAWN BY: GAI

DATE: 3/16/2012

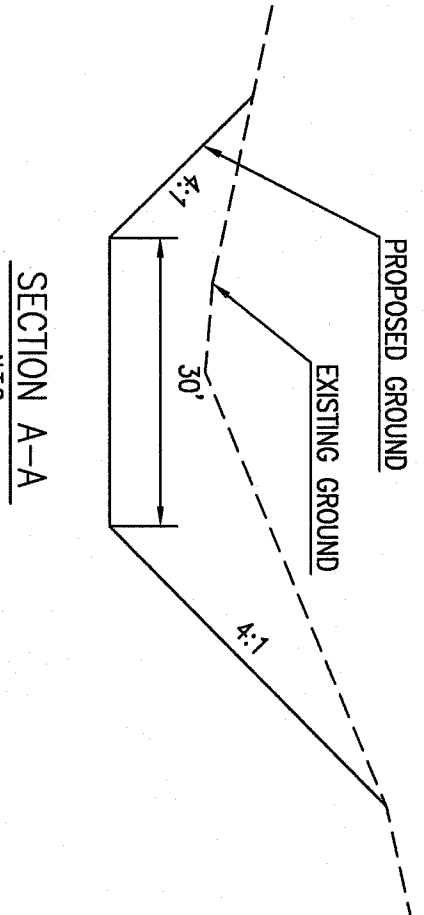
PROJECT NO. 980-1007

SHEET 43 OF 50

SHEET 248



POINT #	STATION	OFFSET
1	1+72.50	30.00' L.T.
2	1+82.50	30.00' L.T.
3	1+97.50	31.00' L.T.
4	2+01.34	34.48' L.T.
5	2+08.50	23.32' RT.
6	2+25.50	23.32' RT.
7	2+25.00	45.00' RT.
8	1+97.50	47.00' RT.
9	1+82.50	50.00' RT.
10	1+72.50	50.00' RT.



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CITY OF DENTON

DRAINAGE IMPROVEMENTS

CULVERT C

STA. 0+00 TO STA. 3+94.77

BONNIE BRAE STREET

FROM VINTAGE BOULEVARD TO I.H. 35E

Graham Associates, Inc.

CONSULTING ENGINEERS & PLANNERS

ARLINGTON, TEXAS 76011 (817) 646-8555

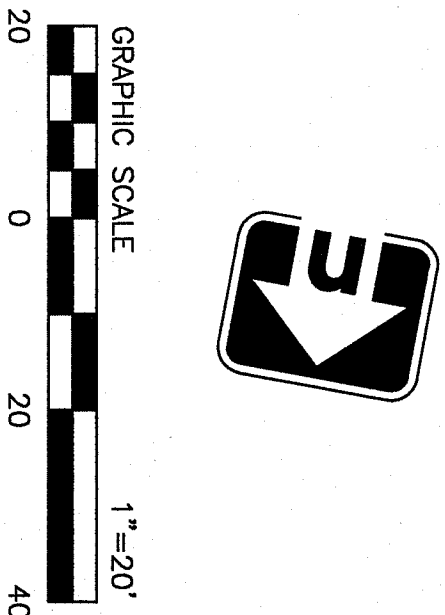
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DRAWN BY: GAI

DATE: 3/14/2012

PROJECT NO.: 590-1007

SHEET 249



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 J.M. WAGNON
 PE No. 55943
 Date 3/14/2012