

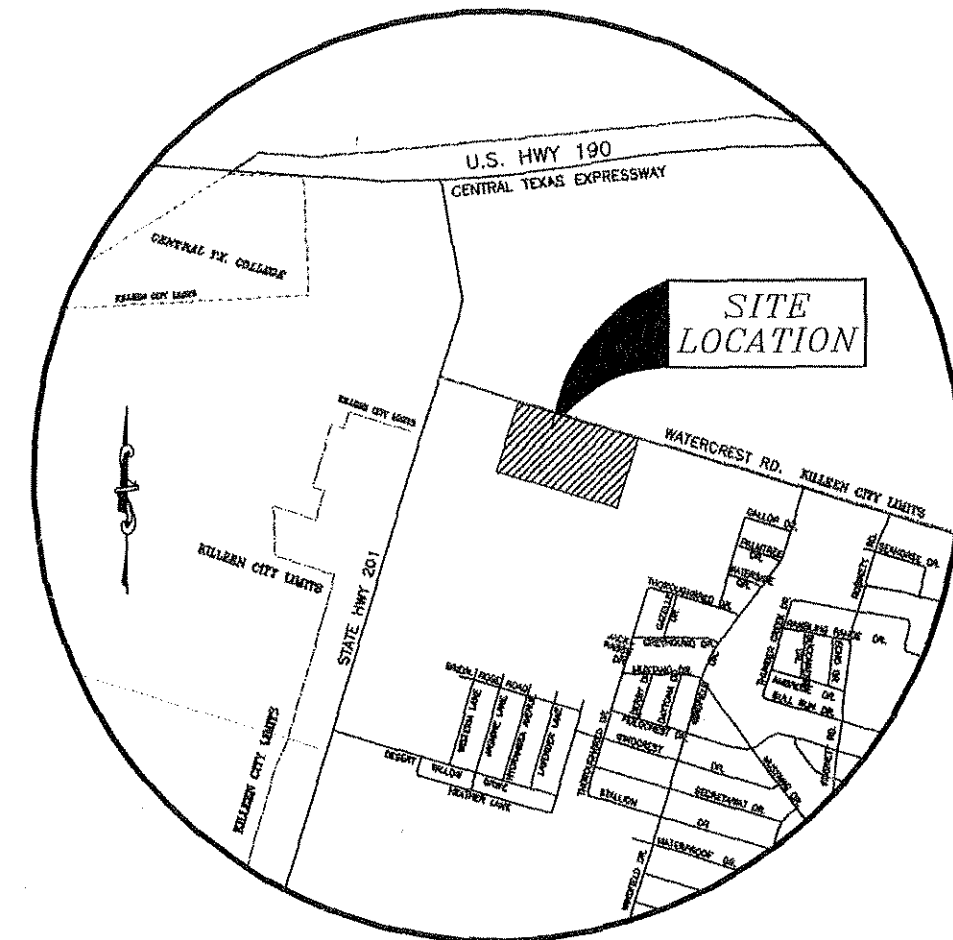


WaterCrest Place

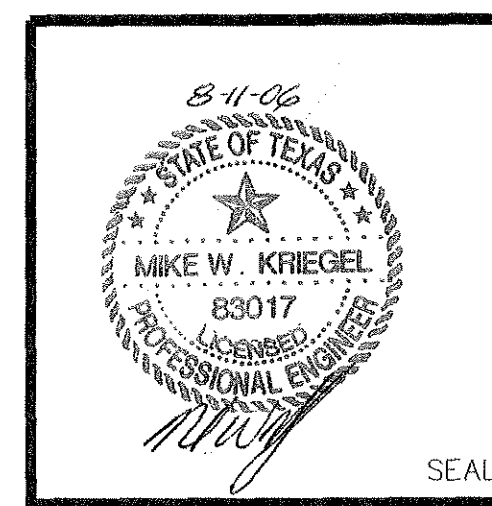


5016 WATERCREST ROAD

**22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS**



VICINITY MAP
N.T.S.



CIVIL ENGINEERING BY:

	MITCHELL & ASSOCIATES, INC. ENGINEERING & SURVEYING 102 N. COLLEGE STREET, KILLEEN, TEXAS (254) 634-5541	
--	---	--

CIVIL SHEET INDEX

C1	COVER SHEET
C2	GEN. SITE NOTES, LEGEND, & ABBREV.
C3	SITE PLAN
C4	DIMENSION PLAN
C5	GRADING PLAN
C5.1 - C5.4	ENLARGED GRADING PLAN
C6	STORM DRAINAGE PLAN/SW3P
C6.1 - C6.13	STORM PLAN & PROFILE
C7	UTILITIES MASTER PLAN
C7.1 - C7.6	SEWER PLAN & PROFILE
C8	HYDROLOGY PLAN
C9	HYDROLOGY PLAN
C10	SITE DETAILS
C11	SITE DETAILS
C12	SITE DETAILS
C13	SITE DETAILS
C14	SITE DETAILS
C15	SITE DETAILS
L1	LANDSCAPING PLAN
L2	LANDSCAPING PLAN
L3	LANDSCAPING PLAN
L4	LANDSCAPING PLAN
L5	LANDSCAPING NOTES/DETAILS

Project Log: Place Properties - Military, I.D. # 1795		
Date	Description	By
06/15/06	CITY SUBMITTAL	GEJ
06/22/06	REVISED COMMUNITY BLDG.	GEJ
08/10/06	CITY COMMENTS	GEJ

Watercrest Place App.
5016 Watercrest Rd., Pgs. 1-15
E.G.
(6/22/06)

WATERCREST PLACE - COVER SHEET

CORRECTED PLANS



CONSTRUCTION NOTES:

- CONTRACTOR TO REMOVE ALL ROCK AND UNSUITABLE MATERIAL TO A DEPTH OF TWO FEET BELOW FINISHED GRADE OR AS DIRECTED BY A GEOTECHNICAL ENGINEER AND/OR THE OWNER/DEVELOPER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEBRIS.
- EARTHWORK IN PERMANENT STRUCTURE AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM SPEC. D-68) OR AS DIRECTED BY GEOTECHNICAL ENGINEER.
- ALL FILL AREAS TO BE PROOF ROLLED.
- ALL CUT AND FILL SLOPES TO BE MINIMUM 3H:1V OR AS SHOWN.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR TO ANY ADJACENT OR EXISTING STRUCTURES THAT ARE TO REMAIN.
- CONTRACTOR SHALL PROVIDE DUST CONTROL AND PROTECT ADJACENT STREETS FROM ACCUMULATION OF SOIL.
- CONTRACTOR IS RESPONSIBLE FOR MONITORING DOWNSTREAM CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND CLEARING ANY DEBRIS AND SEDIMENT CAUSED BY THE CONSTRUCTION.
- DETENTION POND, DETENTION OUTLET STRUCTURES AND TEMPORARY SEDIMENT POND FEATURES ARE TO BE FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING.

PERMITS AND PERMIT REQUIREMENTS:

THE CONTRACTOR SHALL OBTAIN FROM THE OWNER, COPIES OF ALL REGULATORY AGENCY PERMITS AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE AGENCIES PRIOR TO BEGINNING WORK.

LAYOUT & CONTROL:

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL USE THE GEOMETRY PROVIDED ON THE CONSTRUCTION PLANS. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

LIMITS OF CONSTRUCTION:

THE CONTRACTOR IS EXPECTED TO CONTAIN ALL CONSTRUCTION ACTIVITIES WITHIN THE SITE LIMITS. AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. ANY REPAIR OR RECONSTRUCTION OF DAMAGED AREAS IN SURROUNDING PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.

GENERAL DESIGN INTENT:

ALL PAVED SURFACES AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS AND SPOT ELEVATIONS ON THE PLANS AND TO PROVIDE A SMOOTH TRANSITION BETWEEN SURFACES WITH NO SHARP BREAKS IN GRADE AND NO UNUSUALLY STEEP OR REVERSE CROSS SLOPES. IT MAY BECOME ADVISABLE TO MAKE MINOR FIELD ADJUSTMENTS IN THE PROPOSED GRADES TO CONSTRUCT THE DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE. THE ENGINEER SHALL BE CONSULTED SO THAT HE MAY MAKE ANY AND ALL INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTIONS TO ACCOMPLISH THE INTENT OF THE PLANS.

MATERIAL STORAGE/DEBRIS REMOVAL:

ALL WASTE MATERIALS EXCAVATED FROM THE SITE SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NON-ORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE.

EXCAVATION:

REMOVE ALL ORGANIC MATTER, STUMPS, DELETERIOUS MATTER, AND CONCRETE PAVING, FOUNDATIONS, ETC. WITHIN THE BUILDING PADS PREDESIGNIFY WITH LOADED DUMP TRUCK (20-TON MINIMUM) OR OTHER SUITABLE RUBBER TIERED EQUIPMENT. OVERLAPPING PASSES OF THE VEHICLE SHALL BE MADE ACROSS THE SITE IN ONE DIRECTION AND THEN AT RIGHT ANGLES TO THE ORIGINAL DIRECTION OF ROLLING. ALL YIELDING, PUMPING, OR SOFT AREAS IN PAVED AREAS AND BUILDING PADS SHALL BE CUT OUT AND REPLACED WITH FILL COMPACTED AS SPECIFIED ON GRADING PLAN.

GRADING:

STRUCTURAL FILL MATERIAL REQUIRED TO BRING THE SITE TO GRADE SHALL BE LIMITED TO SOILS CLASSIFIED IN ACCORDANCE WITH ASTM D2487 AS GM, GC, SW, SP, SM, SC, ML, AND CL. ON-SITE SOILS FROM CUT AREAS MAY BE SUITABLE FOR FILL MATERIAL.

TOPSOIL:

THE CONTRACTOR SHALL STOCKPILE AND LATER SPREAD A MINIMUM OF 6 INCHES OF TOPSOIL IN AREAS TO BE LANDSCAPED, SODDED OR SEEDED.

SURFACE DAMAGE:

THE CONTRACTOR SHALL BE EXPECTED AT THE END OF EACH DAY TO HAVE THE SITE GRADED IN SUCH A WAY AS TO NOT CAUSE ANY ADVERSE IMPACT FROM RUNOFF OR SILTATION TO ANY ADJACENT PROPERTIES. SILTATION BARRIERS SHALL BE MAINTAINED AND REPAIRED IF REQUIRED AT THE END OF EACH WORKING DAY.

PAVEMENT SECTION REQUIREMENTS:

SUBGRADE PREPARATIONS AND PAVEMENT INSTALLATION SHALL CONFORM TO TxDOT STANDARDS AND SPECIFICATION. REFER TO DRAWINGS FOR THE REQUIRED PAVEMENT SECTIONS.

SIDEWALKS:

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREAS AS SHOWN ON THE CONSTRUCTION PLANS. THE SIDEWALK SHALL BE CONSTRUCTED OF 4" OF CONCRETE WITH A 28-DAY COMPRESSION STRENGTH OF 3,000 PSI. JOINTS SHALL BE EITHER TOOLED OR SAW CUT. HANDICAPPED RAMPS SHALL BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

GENERAL UTILITIES:

INSTALLATION OF ALL UTILITIES SHALL CONFORM TO THE LOCAL GOVERNING AGENCIES STANDARDS & SPECIFICATIONS.

COORDINATE WATER & SEWER CONNECTIONS WITH PLUMBING CONTRACTOR & REFER TO PLUMBING PLANS.

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONFIDENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING THE RELOCATION OPERATION. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

SANITARY SEWER:

ALL SANITARY SEWER PIPE SHALL BE PVC, CONFORMING TO ASTM D3034 SDR-35. INSTALLATION OF SEWER PIPE SHALL CONFORM TO THE LOCAL GOVERNING AGENCIES STANDARDS & SPECIFICATIONS. REFER TO "LOCAL GOVERNING MANUAL" FOR DETAILS. HORIZONTAL SEPARATION OF AT LEAST 10' SHALL BE MAINTAINED BETWEEN WATER AND SEWER LINES. WHEN WATER AND SEWER LINES CROSS WITH LESS THAN 18" VERTICAL SEPARATION OR WHEN THE WATER LINE CROSSES BENEATH THE SEWER LINE AT ANY DEPTH, THE SEWER LINE SHALL BE ENCASED IN CONCRETE. ALL SEWER FITTINGS SHALL BE PVC MEETING THE REQUIREMENTS OF ASTM D3034. FITTINGS SHALL BE SUITABLE FOR USE WITH PVC SDR-35 GRAVITY SEWER PIPE. ALL FITTINGS SHALL HAVE ELASTOMETRIC RUBBER SEALS. GASKETS SHALL CONFORM TO ASTM F477.

WATER LINES:

WATER MAIN SHALL BE CONSTRUCTED AS SHOWN ON THE CONSTRUCTION PLANS SERVICE LINE SHALL BE PVC SDR-21. INSTALLATION OF WATER PIPE SHALL CONFORM TO THE LOCAL GOVERNING AGENCIES STANDARDS & SPECIFICATIONS.

SITE ABBREVIATIONS:

- Ø - DIAMETER
- ± - PLUS OR MINUS
- % - PERCENT
- BL - BUILDING LINE
- B.F.P. - BACKFLOW PREVENTOR
- B.O.C. - BACK OF CURB
- C.B. - CATCH BASIN
- C&G - CURB & GUTTER
- C.I. - CURB IL-H-G
- C/L - CENTERLINE
- C.M.P. - CORRUGATED METAL PIPE
- CMU - CONCRETE MASONRY UNIT
- C.O. - CLEANOUT
- CONC. - CONCRETE
- CONST. - CONSTRUCTION
- CONT. - CONTINUOUS
- CULV. - CULVERT
- D.E. - DRAINAGE EASEMENT
- DIA. - DIAMETER
- D.I. - DROP IL-H-G
- EA. - EACH
- ELEV. - ELEVATION
- E.O.A. - EDGE OF ASPHALT
- E.O.P. - EDGE OF PAVING
- ESMT. - EASEMENT
- EX./EXIST. - EXISTING
- EXP. JT. - EXPANSION JOINT
- F.F.E. - FINISH FLOOR ELEVATION
- F.G. - FINISH GRADE
- F.H. - FIRE HYDRANT
- F. & I. - FURNISH & INSTALL
- F.M. - FORCE MAIN
- GALV. - GALVANIZED
- G.C. - GENERAL CONTRACTOR
- G.I. - GRATE IL-H-G
- H.C. - HANDICAP
- H.D.P.E. - HIGH DENSITY POLYETHYLENE PIPE
- HORIZ. - HORIZONTAL
- H.W. - HEADWALL
- INV. - INVERT
- MH-M - JUNCTION BOX
- L.F. - LINEAR FEET
- M.H. - MANHOLE
- MON. - MONUMENT
- N.I.C. - NOT IN CONTRACT
- N.T.S. - NOT TO SCALE
- O.E. - OVERHEAD ELECTRIC
- O.T. - OVERHEAD TELEPHONE
- P/L - PROPERTY LINE
- P.P. - POWER POLE
- P.V.C. - POLYVINYL CHLORIDE
- R - RADIUS
- R.C.P. - REINFORCED CONCRETE PIPE
- REINF. - REINFORCED
- R.O.W. - RIGHT OF WAY
- R.W. - RETAINING WALL
- SECT. - SECTION
- S.F. - SQUARE FEET
- SHT. - SHEET
- SPECS. - SPECIFICATIONS
- S.S. - SANITARY SEWER
- STA. - STATION
- STD. - STANDARD
- S.W. - SIDEWALK
- T.B.M. - TEMPORARY BENCH MARK
- T.C./T.O.C. - TOP OF CURB
- THK. - THICK
- TRANS. - TRANSFORMER
- T.W. - TOP OF WALL
- TYP. - TYPICAL
- U.E. - UTILITY EASEMENT
- U.G.E. - UNDERGROUND ELECTRIC
- U.S.E. - UNDERGROUND TELEPHONE
- V.C. - VITRIFIED CLAY
- VERT. - VERTICAL
- W/ - WITH
- W/O - WITHOUT
- W.M. - WATER METER
- W.W.F. - WELDED WIRE FABRIC
- W.V. - WATER VALVE

SITE LEGEND:

	EXISTING	PROPOSED	
CONTOUR		× TO 0.000 TO 0.000	ADJOINERS
SPOT ELEVATION	N/A		EASEMENT 10.00 U.E.
DRAINAGE FLOW	N/A	➔	BUILDING LINE 20.00 B.L.
PROPERTY LINE		N/A	CENTERLINE
WOOD FENCE			BUILDING
CHAIN LINK FENCE			SIDEWALK
STORM DRAIN			FIRE LANE
WATER			EXISTING FEATURES
SEWER			PROPOSED FEATURES
GAS			ADA ACCESSIBLE ROUTE
ELECTRIC			
MANHOLE	⊙	⊙	
CLEANOUT	⊙	⊙	
WATER METER	⊙	⊙	
WATER VALVE	⊙	⊙	
FIRE HYDRANT	⊙	⊙	
SIGN	⊙	⊙	
POWER POLE	⊙	⊙	
BENCH MARK	⊙	N/A	

UTILITY CONTACTS:

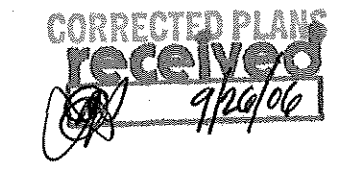
- INSPECTIONS: CITY OF KILLEEN 254-501-7762
- WATER: CITY OF KILLEEN 254-634-7461
- SEWER: CITY OF KILLEEN 254-634-7461
- GAS: TXU GAS 1-800-460-3030
- ELECTRIC: TXU ELECTRIC 1-800-242-9113
- UTILITY LOCATE: 800-344-8377

SITE INFORMATION:

- PROPOSED LAND USAGE: MULTI-FAMILY RESIDENTIAL USE FOR AN APARTMENT COMPLEX
- ZONING: R-3
- ACREAGE: 22.221
- PARKING SPACES REQUIRED 800
LOADING SPACES REQUIRED 0
ADA REQUIREMENTS 17
PARKING SPACES SHOWN 843
- PROJECT ADDRESS:
5016 WATERCREST ROAD
KILLEEN, TX.
- OWNER/DEVELOPER:
TREVOR C. TOLLETT
DEVELOPMENT ASSOCIATE
PLACE PROPERTIES
5605 N. MACARTHUR BLVD., 10TH FLOOR
IRVING, TX 75038
O) 972.819.3742
F) 972.819.3644
M) 214.727.6402

SEQUENCE OF MAJOR ACTIVITIES:

- EROSION CONTROL CONSTRUCTION SCHEDULE**
- PLACE TEMPORARY CONSTRUCTION ENTRANCE FOR TRUCKING AND EQUIPMENT MOBILIZATION WITH STONE.
 - ROUGH GRADE SITE PERIMETER AND INSTALL SILT FENCE SAME DAY WITH GOOD WEATHER PREDICTED BY THE NATIONAL WEATHER BUREAU.
 - DETENTION POND, DETENTION OUTLET STRUCTURES AND TEMPORARY SEDIMENT POND FEATURES ARE TO BE FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING.
 - BEGIN UTILITY WORK AND ROUGH GRADING.
 - FINISH ROUGH GRADING AND START FINISH GRADING.
 - INSTALL ON-SITE PAVING.
 - INSTALL SODDING AND/OR SEEDING.
 - REMOVE SILT FENCING IN AREAS PROTECTED BY PERMANENT STRUCTURES.
 - REMOVE TEMPORARY STONE CONSTRUCTION ENTRANCE.
 - PAVE CONCRETE APPROACHES.
 - COMPLETE INSTALLING SODDING AND LANDSCAPING.
 - REMOVE ALL TEMPORARY EROSION CONTROL DEVICES WHEN APPROVED BY LOCAL GOVERNING AUTHORITY.



IF YOU DIG TEXAS...
CALL US FIRST!
1-800-344-8377
UTILITIES PROTECTION CENTER
IT'S THE LAW

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
GENERAL SITE NOTES, LEGEND, & ABBREVIATIONS

DRAWN BY: GEJ DATE: JUNE 2006 SCALE: AS SHOWN FB-LB: ***** REF-L/B: ***** CLIENT: PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
2	08/10/06		CITY COMMENTS	GEJ
1	06/22/06		REVISED COMMUNITY BLDG.	GEJ

SHEET
C-2 of C-15

I.D. 1795

DWG. 08-201-D

WaterCrest Place Apts.
5016 WaterCrest Rd., Bldgs. 1-15

WATERCREST PLACE - GENERAL SITE NOTES, LEGEND, & ABBREVIATIONS

WATERCREST ROAD
(R.O.W. VARIES)

REVISED

REVISED

MARIE F. SCHEUZE, ET AL
REMAINDER OF CALLED 100.000 ACRES
(VOL. 4283, PAGE 418)

S 17°02'10" W 743.84'
(DEED BEARING S 19°00'00" W)

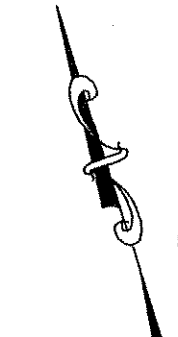
KILLEEN LAF, LTD.
REMAINDER OF CALLED 160.61 ACRES
(VOL. 5254, PAGE 92)

REVISED

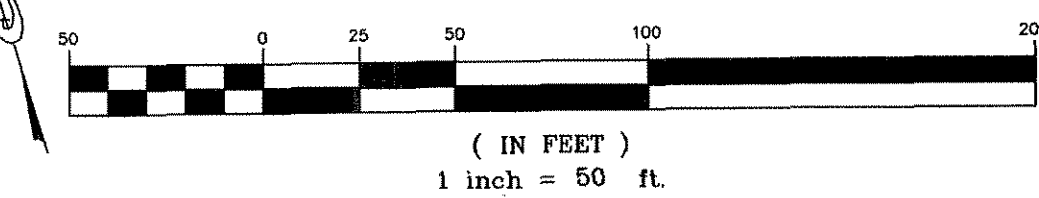
received
10-17-07 ML

REVISED

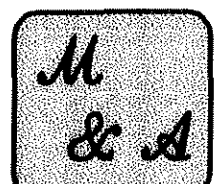
KILLEEN LAF, LTD.
REMAINDER OF CALLED 160.61 ACRES
(VOL. 5254, PAGE 92)



GRAPHIC SCALE



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING



102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

SEAL:



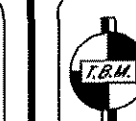
SHEET TITLE:

SITE PLAN

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS



T.B.M. - BRASS
MONUMENT S.E.
CORNER OF S.H. 201
& WATERCREST RD.
ELEV. 974.36

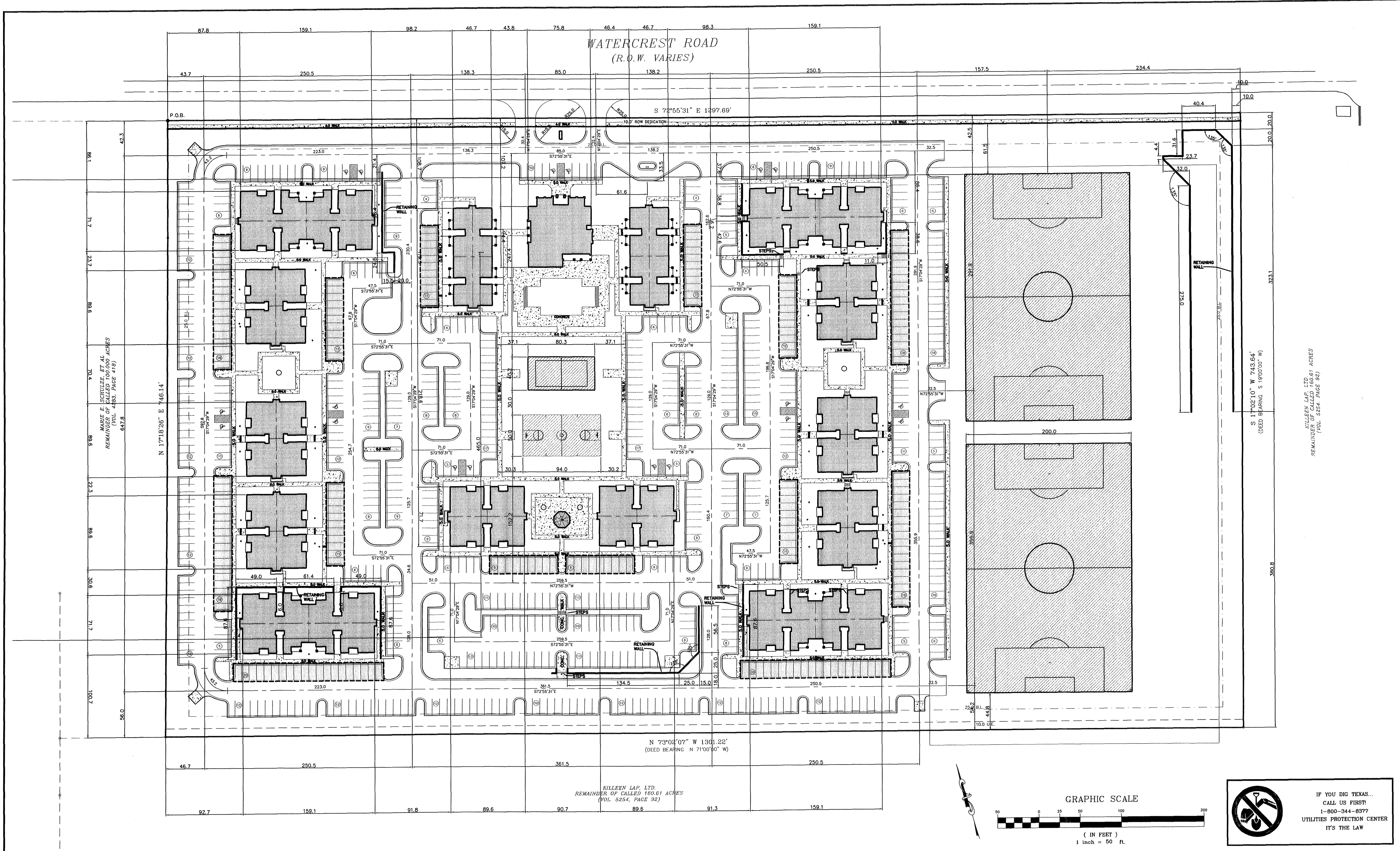
No.	DATE	REMARKS	BY
3	10/10/07	REVISED RETAINING WALL	SMK
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ
REVISIONS			

SHEET
C-3 of C-15

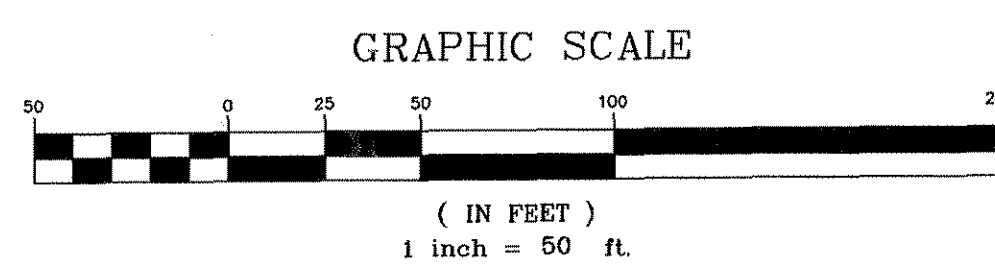
I.D. 1795

DWG. 06-201-D

WATERCREST PLACE - SITE PLAN



WATERCREST PLACE - DIMENSION PLAN



IF YOU DIG TEXAS...
CALL US FIRST!
1-800-344-8377
UTILITIES PROTECTION CENTER
IT'S THE LAW

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

SEAL: 10-17-07

SHEET TITLE: **DIMENSION PLAN**

DRAWN BY: GEJ	DATE: JUNE, 2006	SCALE: AS SHOWN	FB-LB: *****	REF-L/B: *****	CLIENT: PLACE PROPERTIES - MILITARY
---------------	------------------	-----------------	--------------	----------------	-------------------------------------

WaterCrest Place

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS
MONUMENT S.E.
CORNER OF S.H. 201
& WATERCREST RD.
ELEV. 974.36

No.	DATE	REMARKS	BY
5	10/10/07	REVISED RETAINING WALL	SMK
4	10/13/06	REVISED COMMUNITY BLDG	GEJ
3	10/05/06	ADDED BUILDING TIES	GEJ
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET
C-4 of C-15

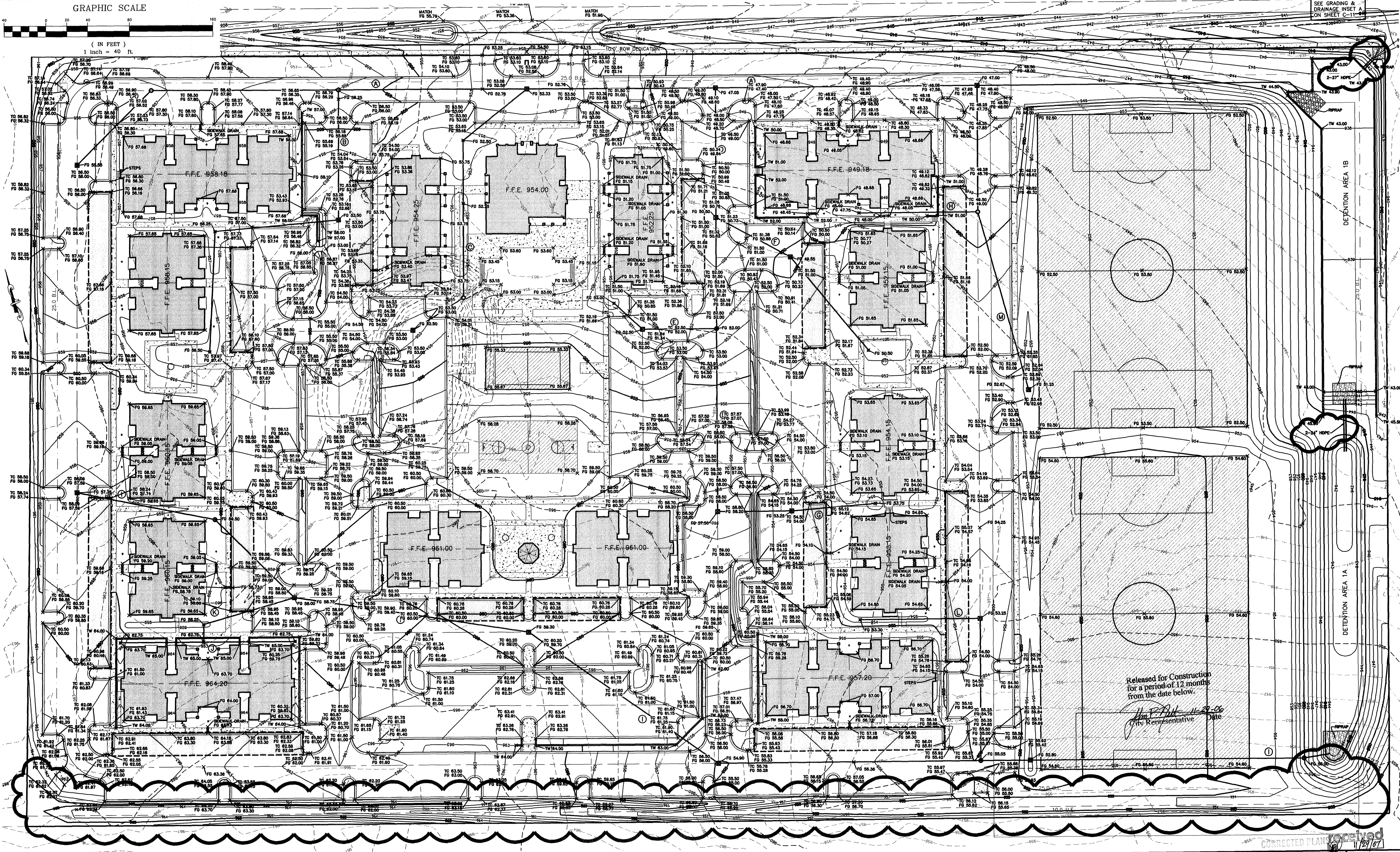
I.D. 1795

DWG. 06-201-D

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

SEE GRADING & DRAINAGE INSET A ON SHEET C-11



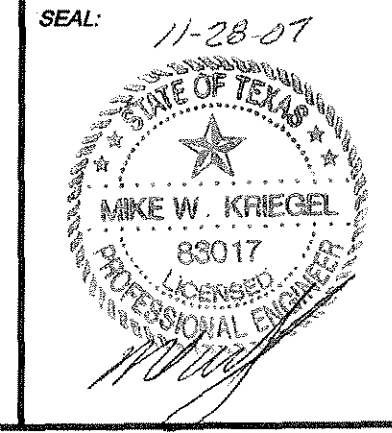
Released for Construction
for a period of 12 months
from the date below.
[Signature]
City Representative Date

CORRECTED PLAN 11/29/07

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

M & A

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: **GRADING PLAN**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS
MONUMENT S.E.
CORNER OF S.H. 201
& WATERCREST RD.
ELEV. 974.36

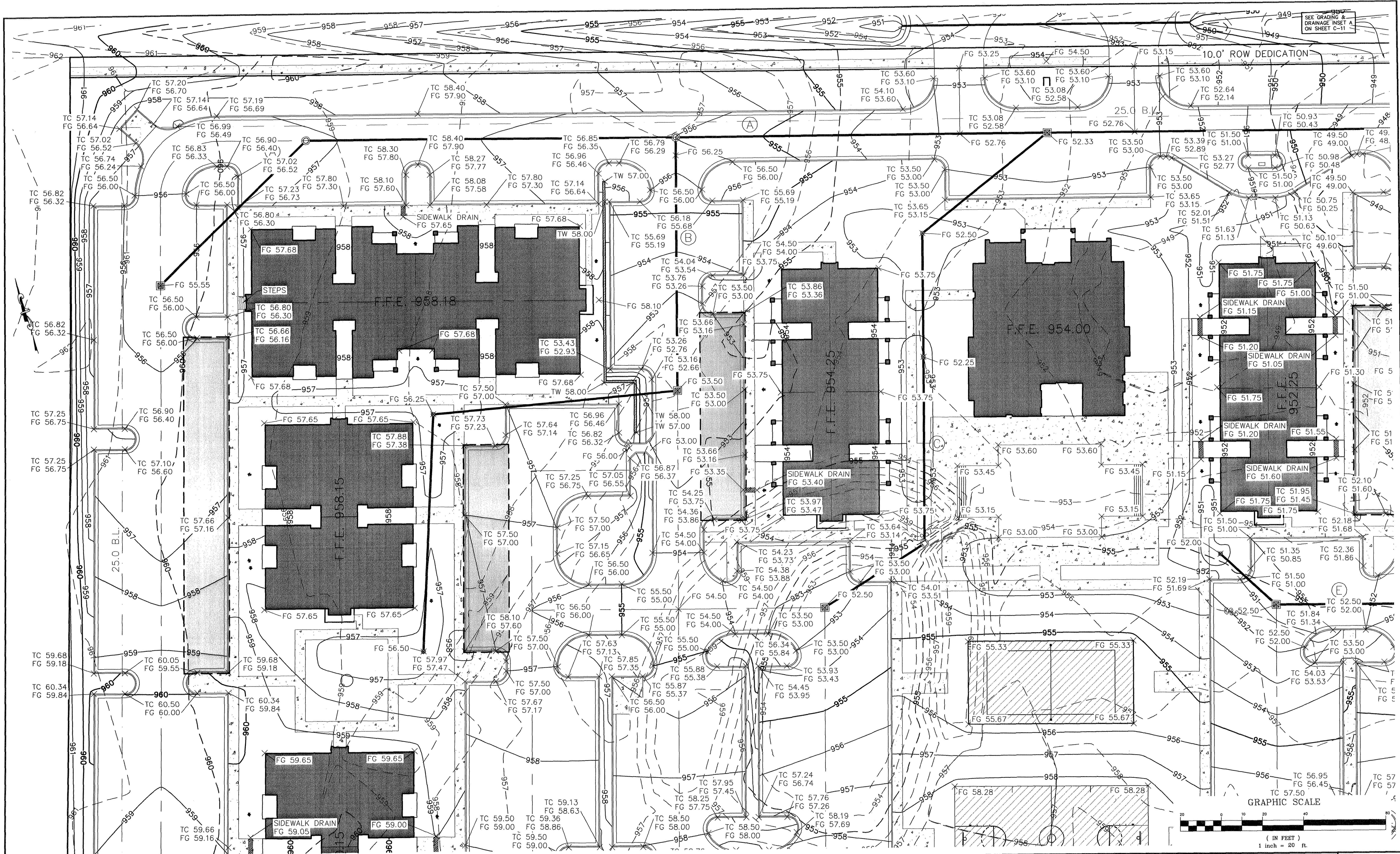
No.	DATE	REVISIONS	REMARKS	BY
5	11/28/07	REVISED DRAINAGE CHANNEL	JES	
4	10/10/07	REVISED RETAINING WALL	SMK	
3	08/30/07	REGARDED SOCCER FIELDS	SMK	
2	08/10/06	CITY COMMENTS	GEJ	
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ	

SHEET
C-5 of C-15

I.D. 1795

DWG. 06-201-D

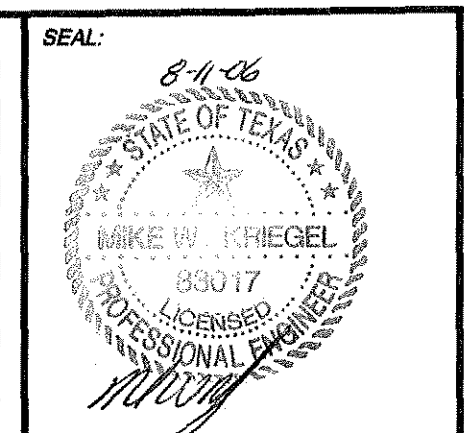
WATERCREST PLACE - GRADING PLAN



WATERCREST PLACE - GRADING PLAN

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: **GRADING PLAN ENLARGED PLAN**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties

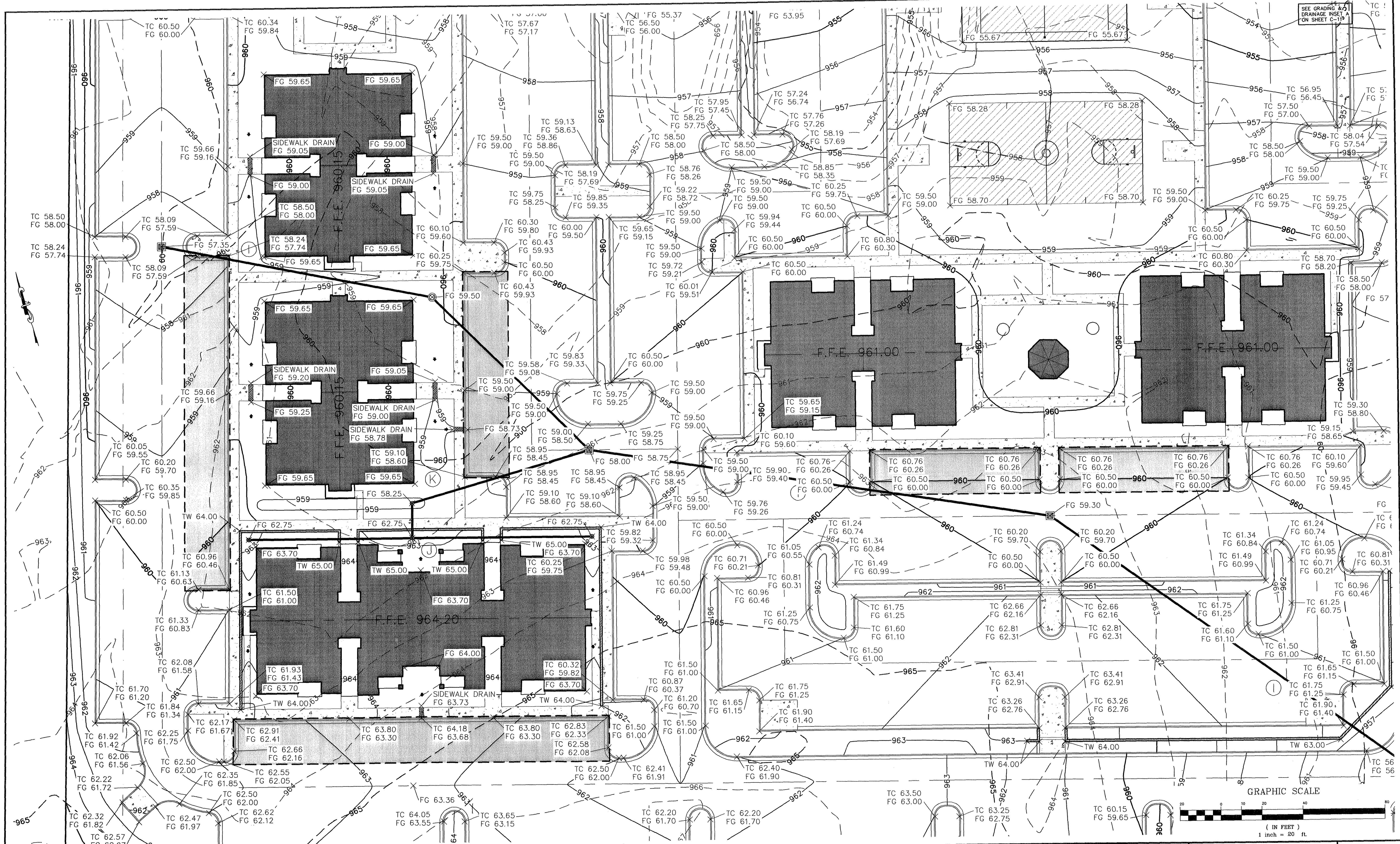
22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
2	08/10/06		CITY COMMENTS	GEJ
1	06/22/06		REVISED COMMUNITY BLDG.	GEJ

SHEET C-5.1 of C-15

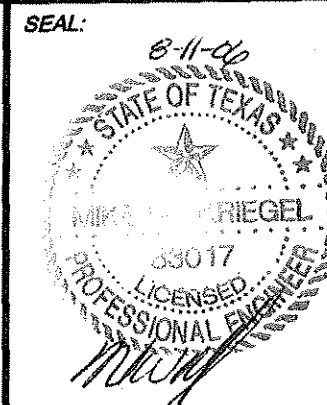
I.D. 1785
DWG. 06-201-D



WATERCREST PLACE - GRADING PLAN

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:

**GRADING PLAN
ENLARGED PLAN**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place



22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS



T.B.M. - BRASS
MONUMENT S.E.
CORNER OF S.H. 201
& WATERCREST RD.
ELEV. 974.36

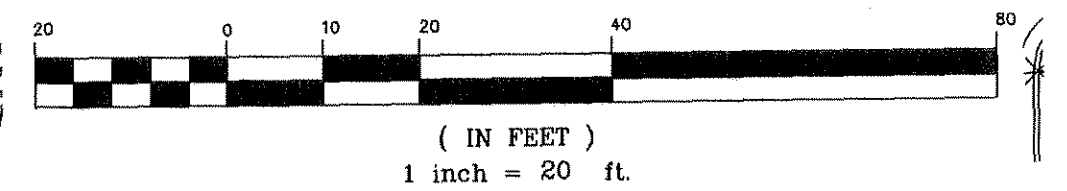
No.	DATE	REVISIONS	BY
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

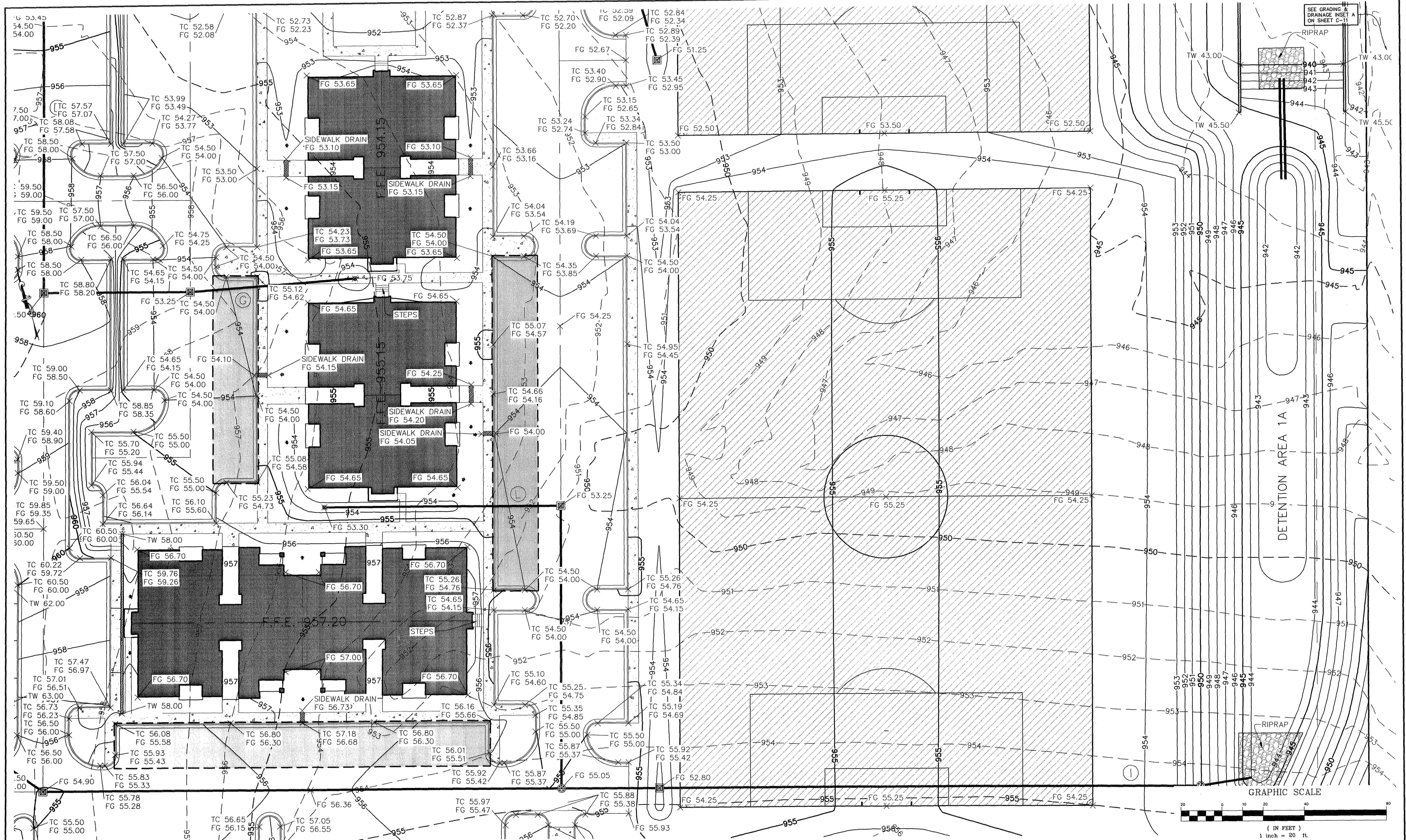
**SHEET
C-5.2 OF C-15**

I.D. 1785

DWG. 06-201-D

GRAPHIC SCALE





WATERCREST PLACE - GRADING PLAN

MITCHELL & ASSOCIATES, INC.
 ENGINEERING & SURVEYING

102 N. COLLEGE STREET
 KILLEEN, TEXAS 76541
 PHONE: (254) 634-5541
 FAX: (254) 634-2141



SHEET TITLE: **GRADING PLAN ENLARGED PLAN**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
 Place Properties

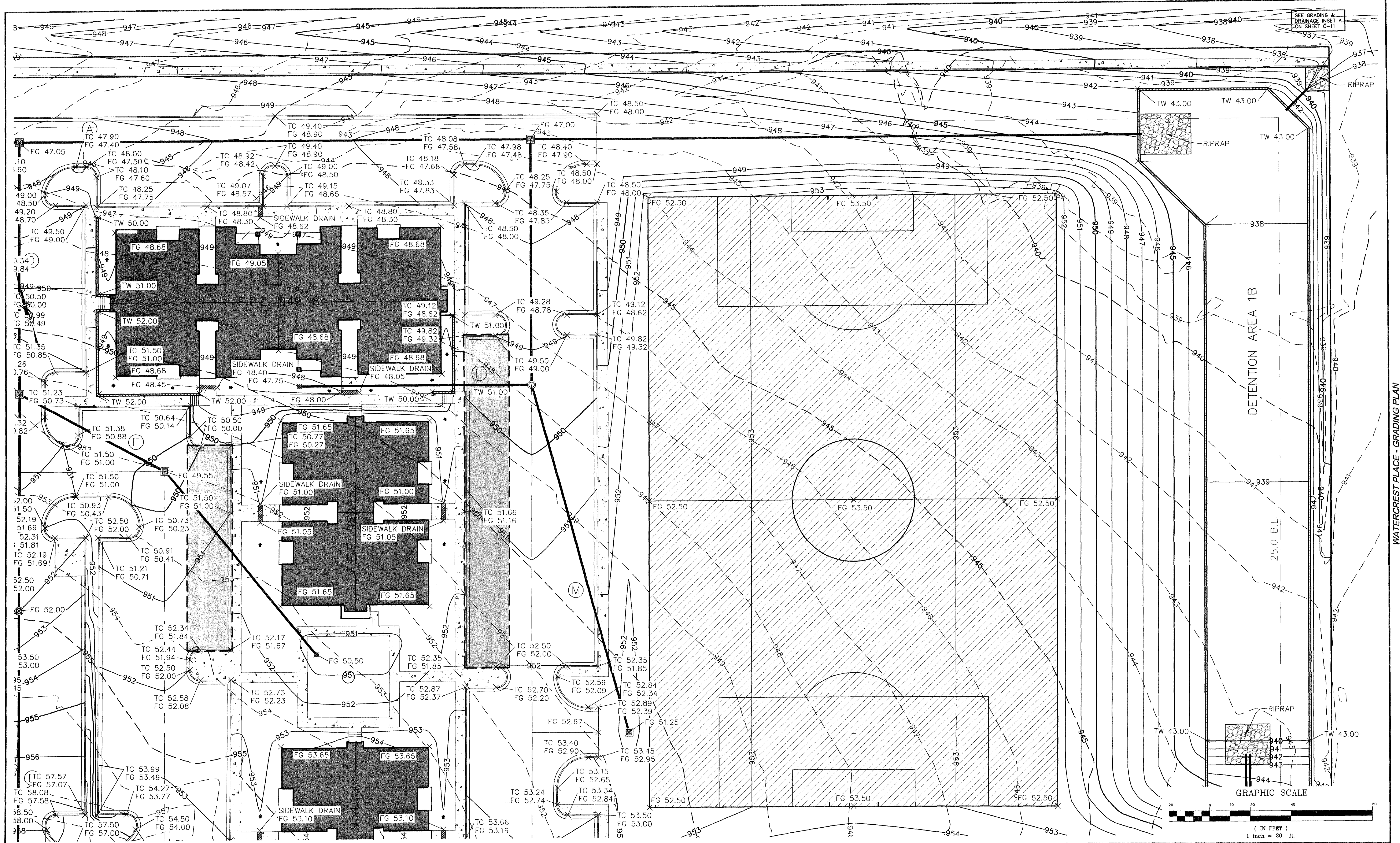
22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
 KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	BY
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET C-5.3 OF C-15

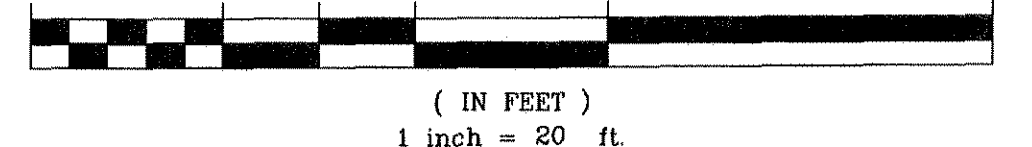
I.D. 1795
 DWG. 06-201-D



SEE GRADING & DRAINAGE INSET ON SHEET C-11

DETENTION AREA 1B

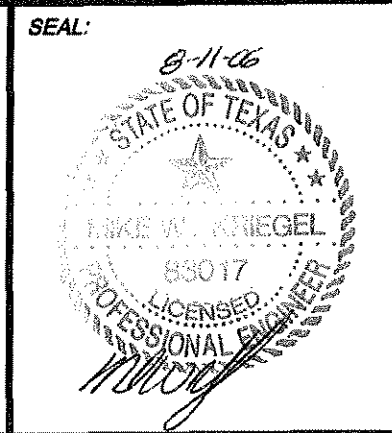
GRAPHIC SCALE



WATERCREST PLACE - GRADING PLAN

MITCHELL & ASSOCIATES, INC.
 ENGINEERING & SURVEYING

102 N. COLLEGE STREET
 KILLEEN, TEXAS 76541
 PHONE: (254) 634-5541
 FAX: (254) 634-2141



SHEET TITLE: **GRADING PLAN ENLARGED PLAN**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
 Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
 KILLEEN, BELL COUNTY, TEXAS

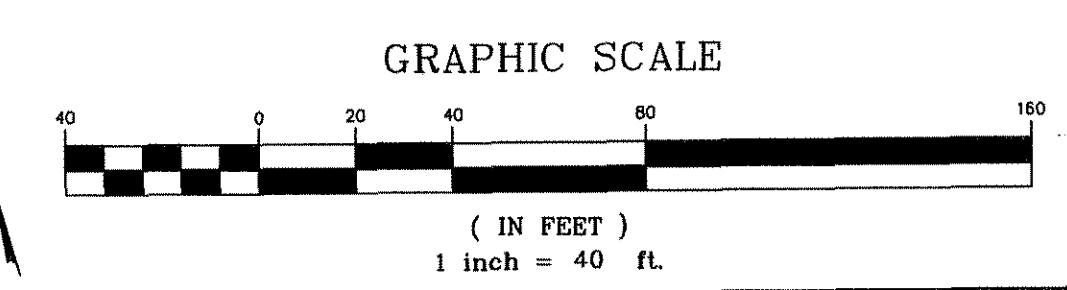
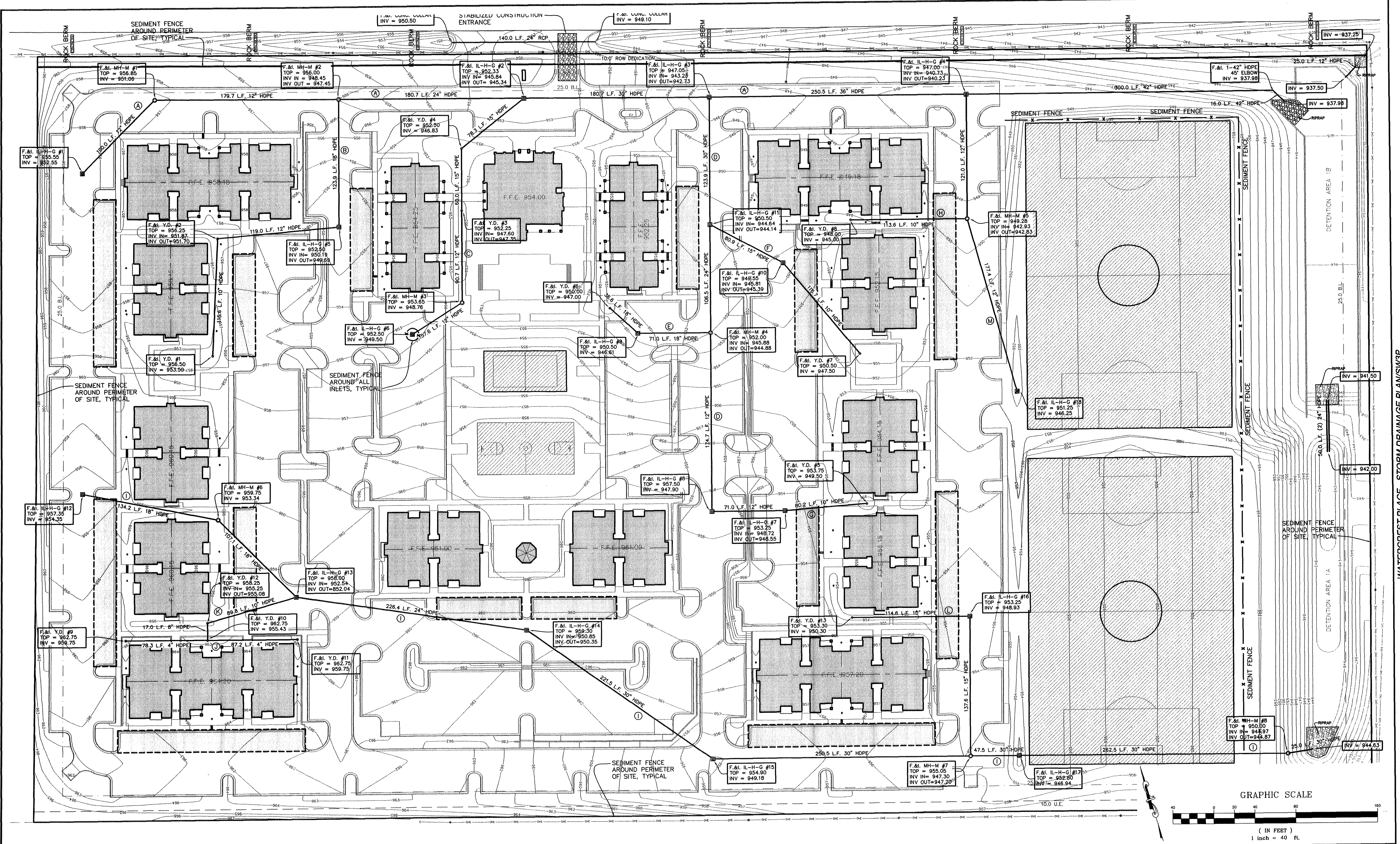
T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	BY
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET **C-5.4 OF C-15**

I.D. 1795

DWG. 06-201-D



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

SEAL: 10-17-07

SHEET TITLE:
STORM DRAINAGE PLAN
STORM WATER POLLUTION PREVENTION PLAN

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS
MONUMENT S.E.
CORNER OF S.H. 201
& WATERCREST RD.
ELEV. 974.36

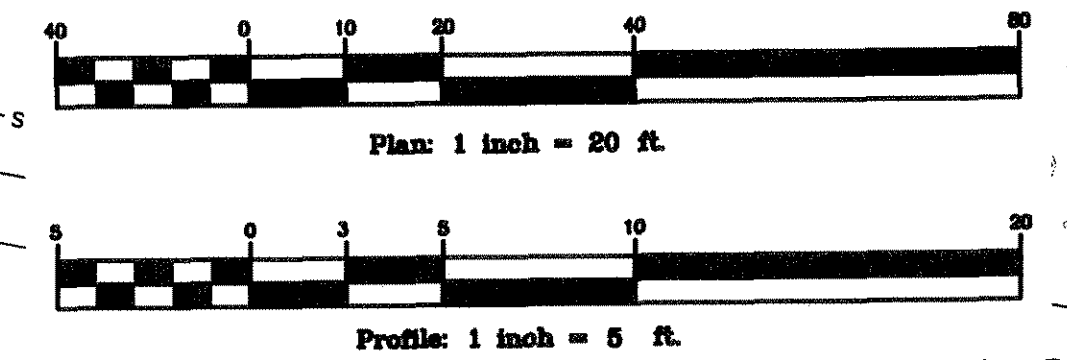
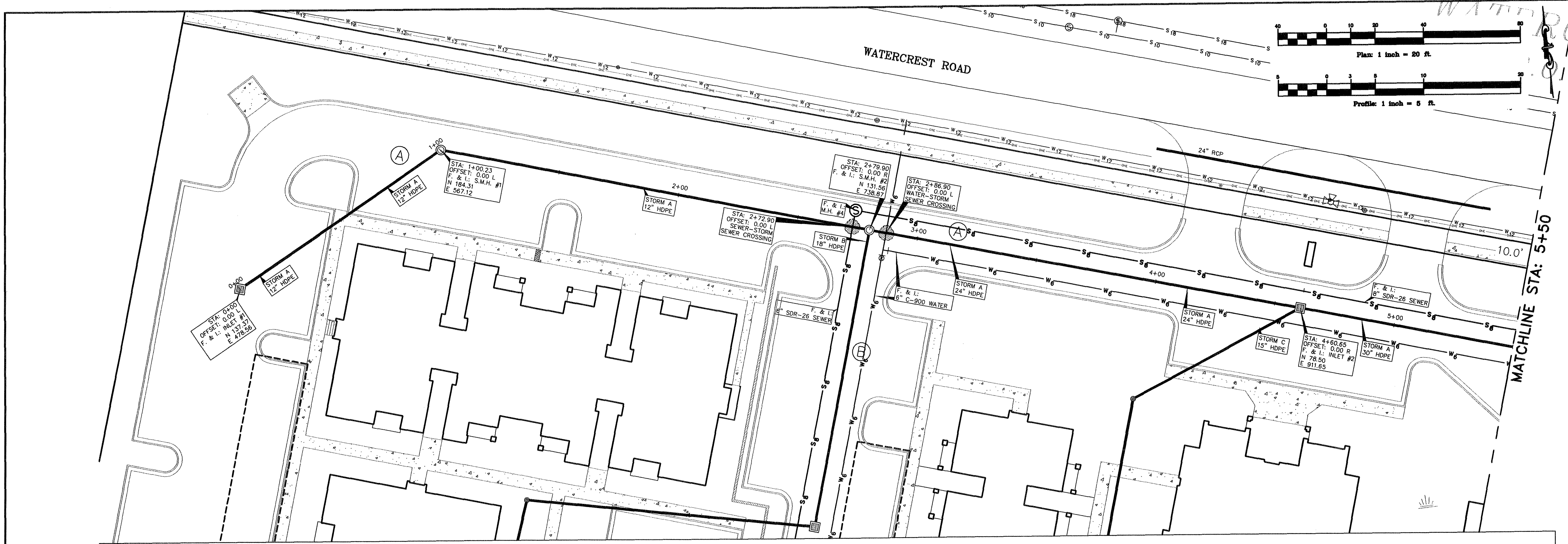
No.	DATE	REVISIONS	BY
3	10/10/07	REVISED RETAINING WALL	SMK
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET
C-6 OF C-15

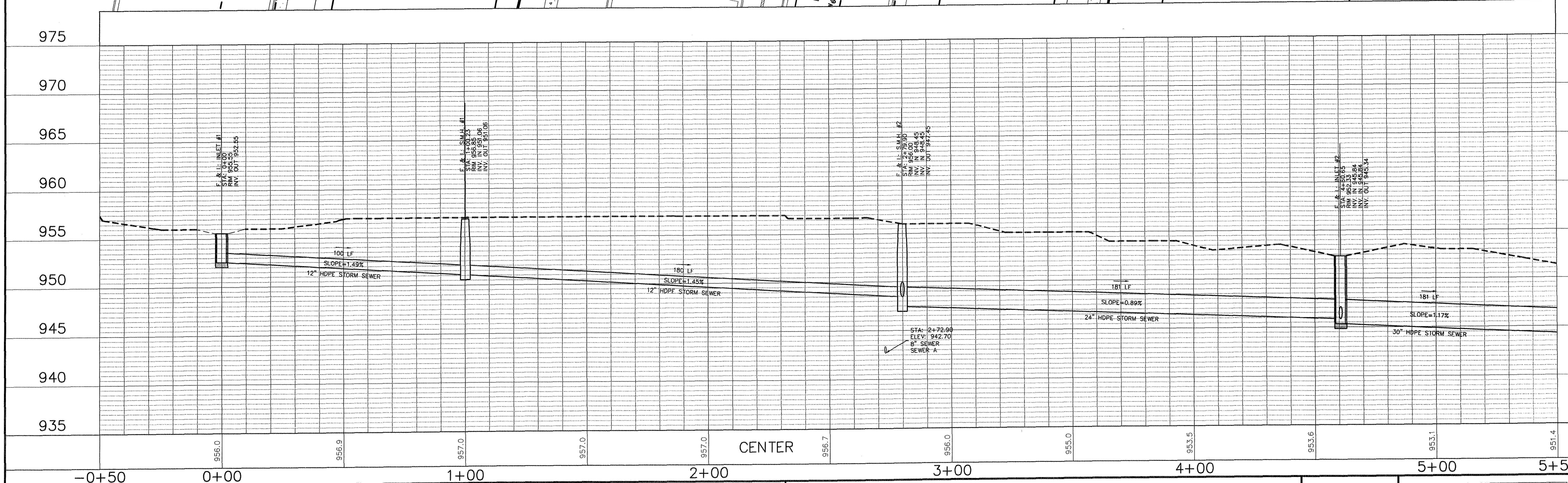
I.D. 1795

DWG. 06-201-D

WATERCREST PLACE - STORM DRAINAGE PLAN(S)3P

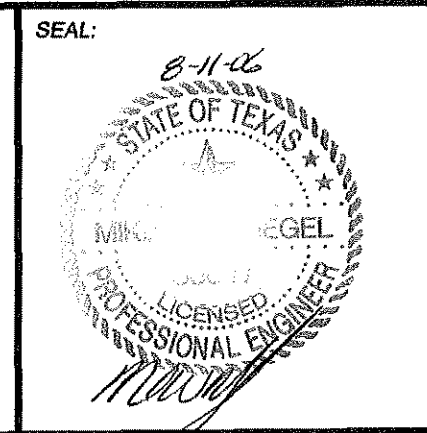


SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**STORM SYSTEM A
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

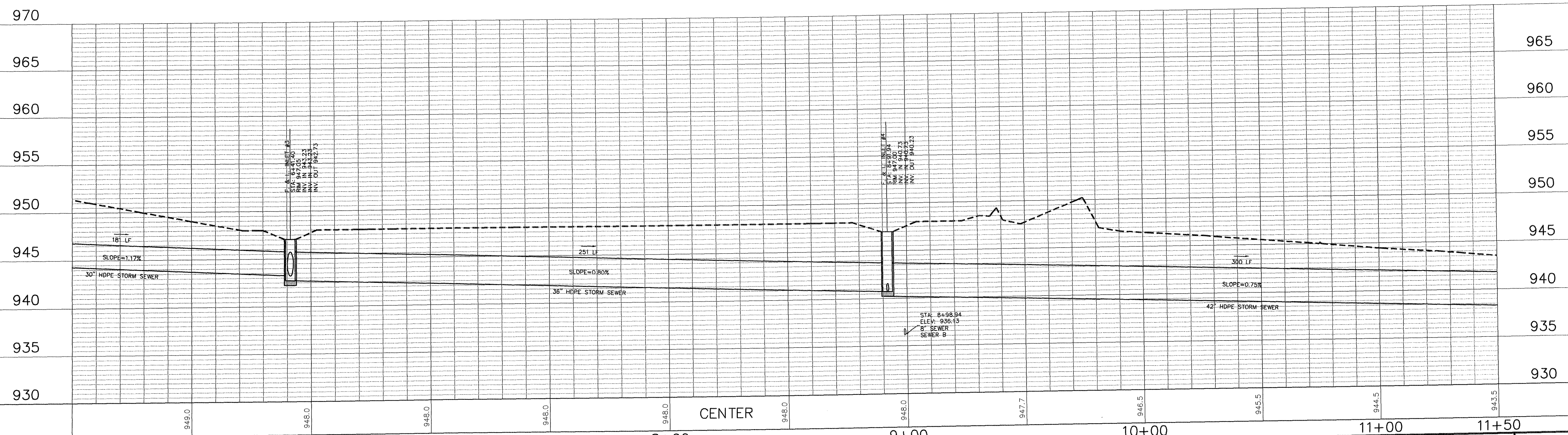
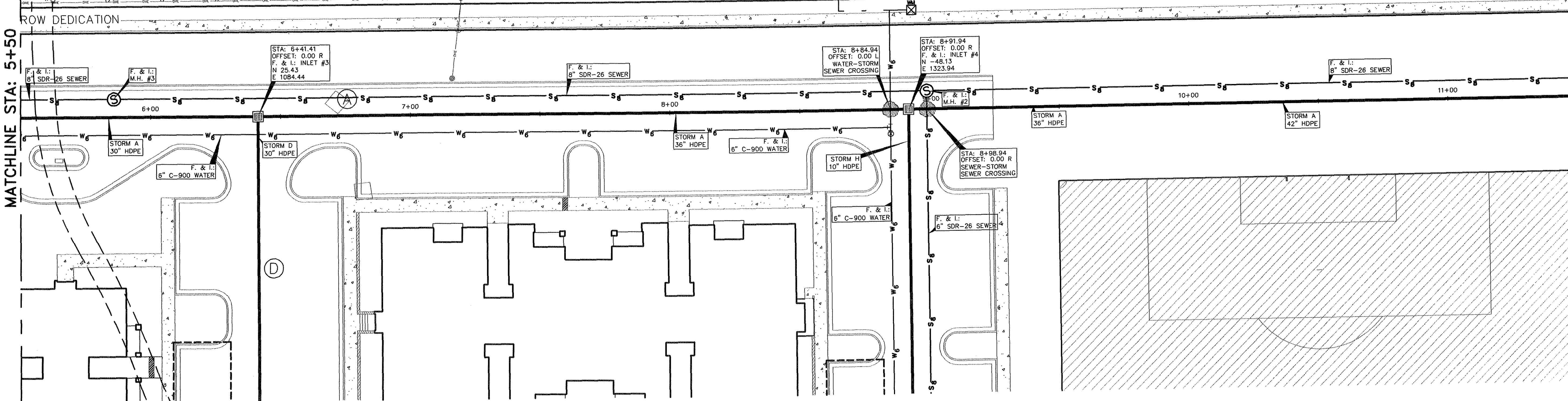
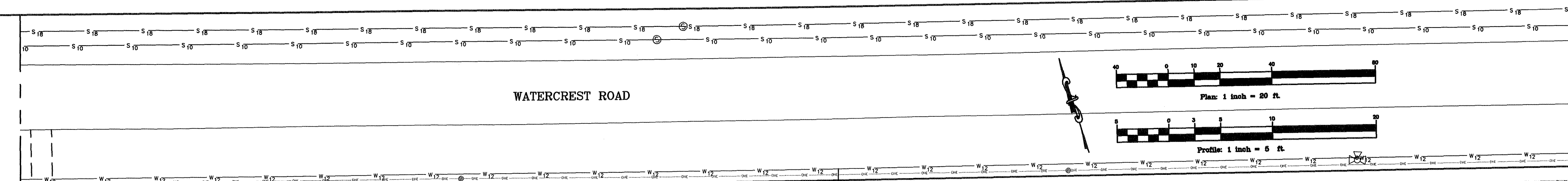
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD,
ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

SHEET
C6.1 OF C6.13

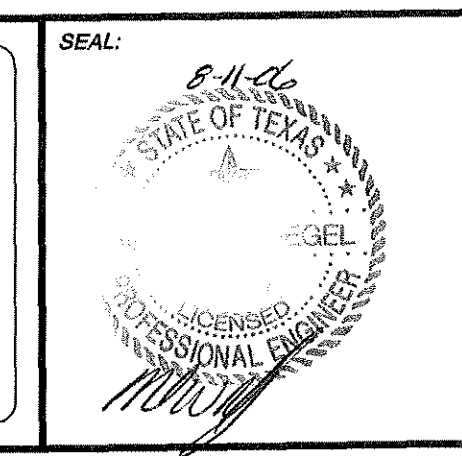
I.D. 1795

DWG. 06-201-D



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**STORM SYSTEM A
PLAN & PROFILE**

DRAWN BY: FRB/GEJ DATE: JUNE 2006 SCALE: AS SHOWN FB-LB: ***** REF-L/B: ***** CLIENT: PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

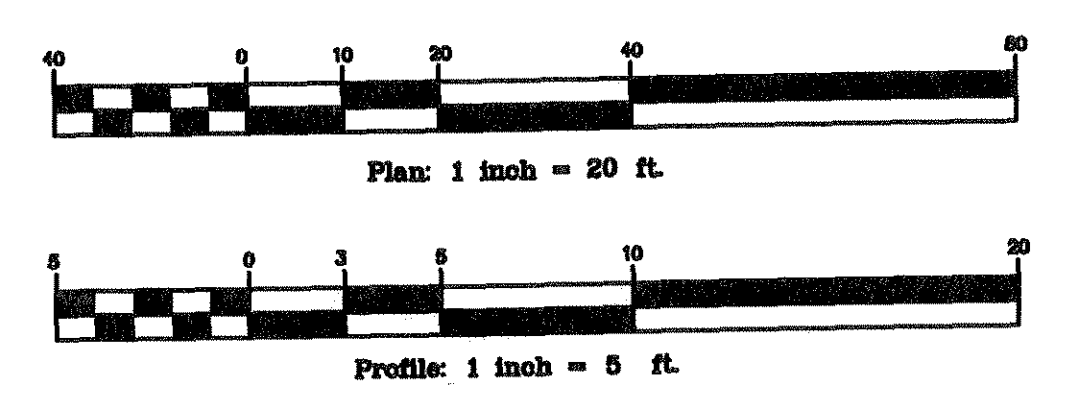
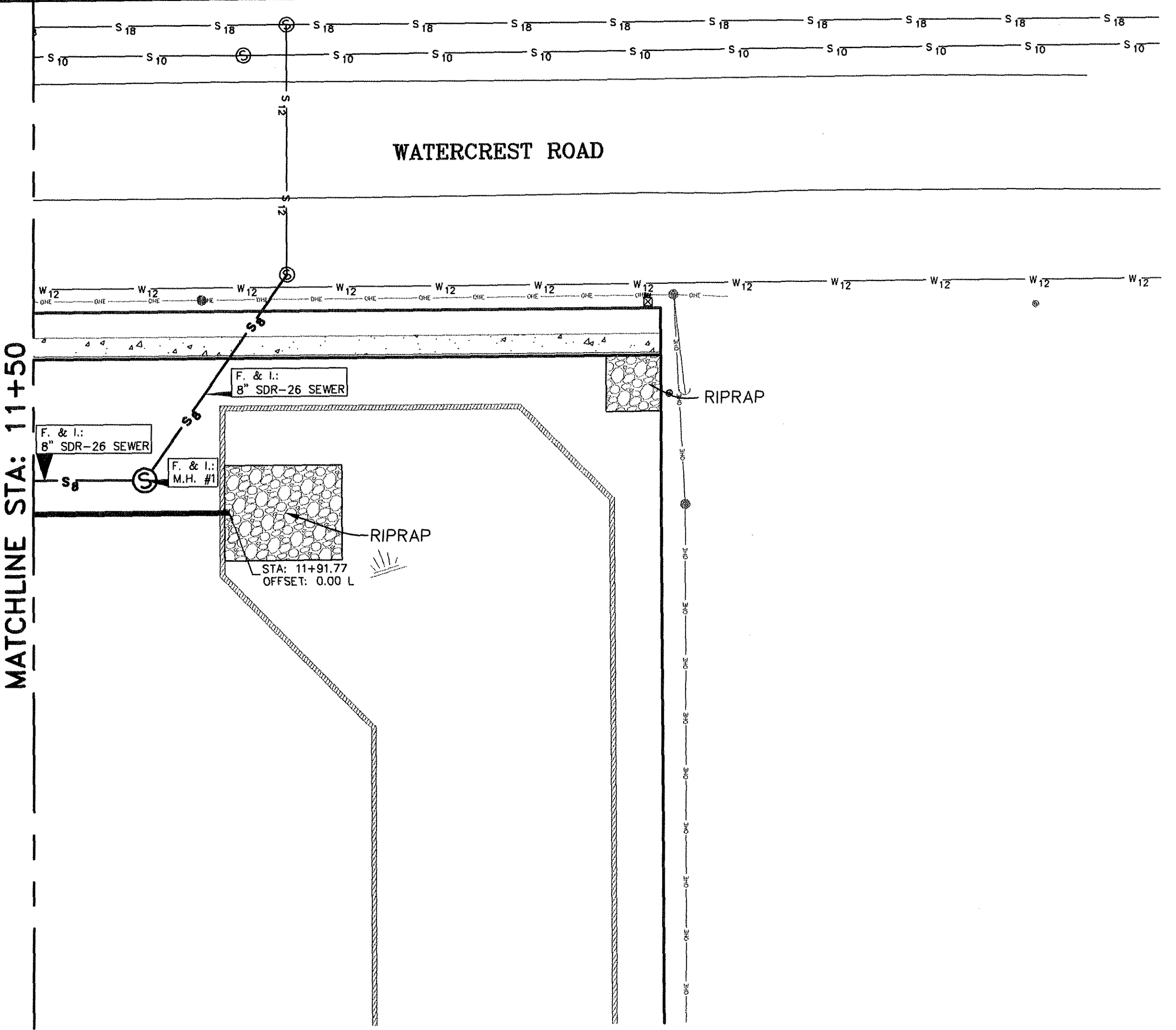
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

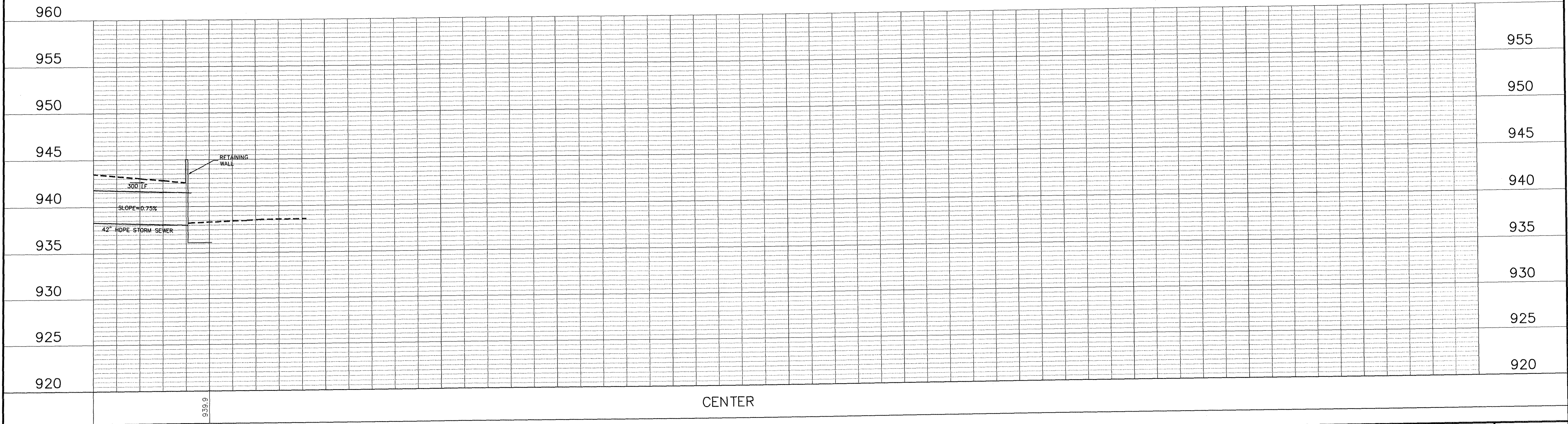
SHEET
C6.2 OF C6.13

I.D. 1795

DWG. 06-201-D

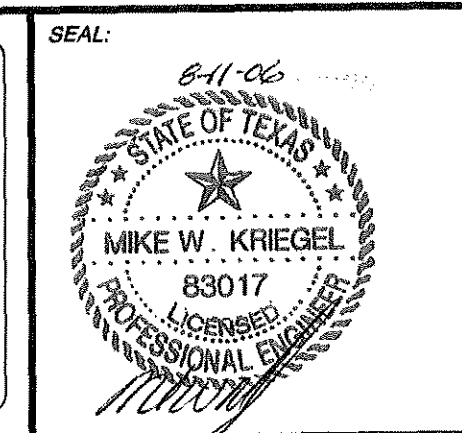


SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**STORM SYSTEM A
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

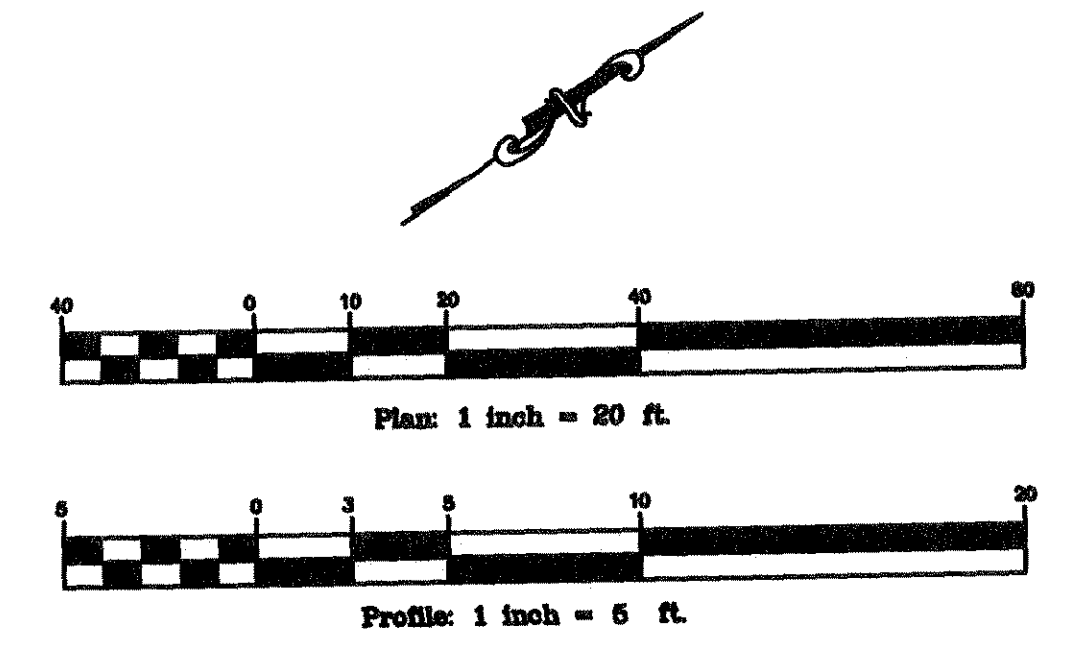
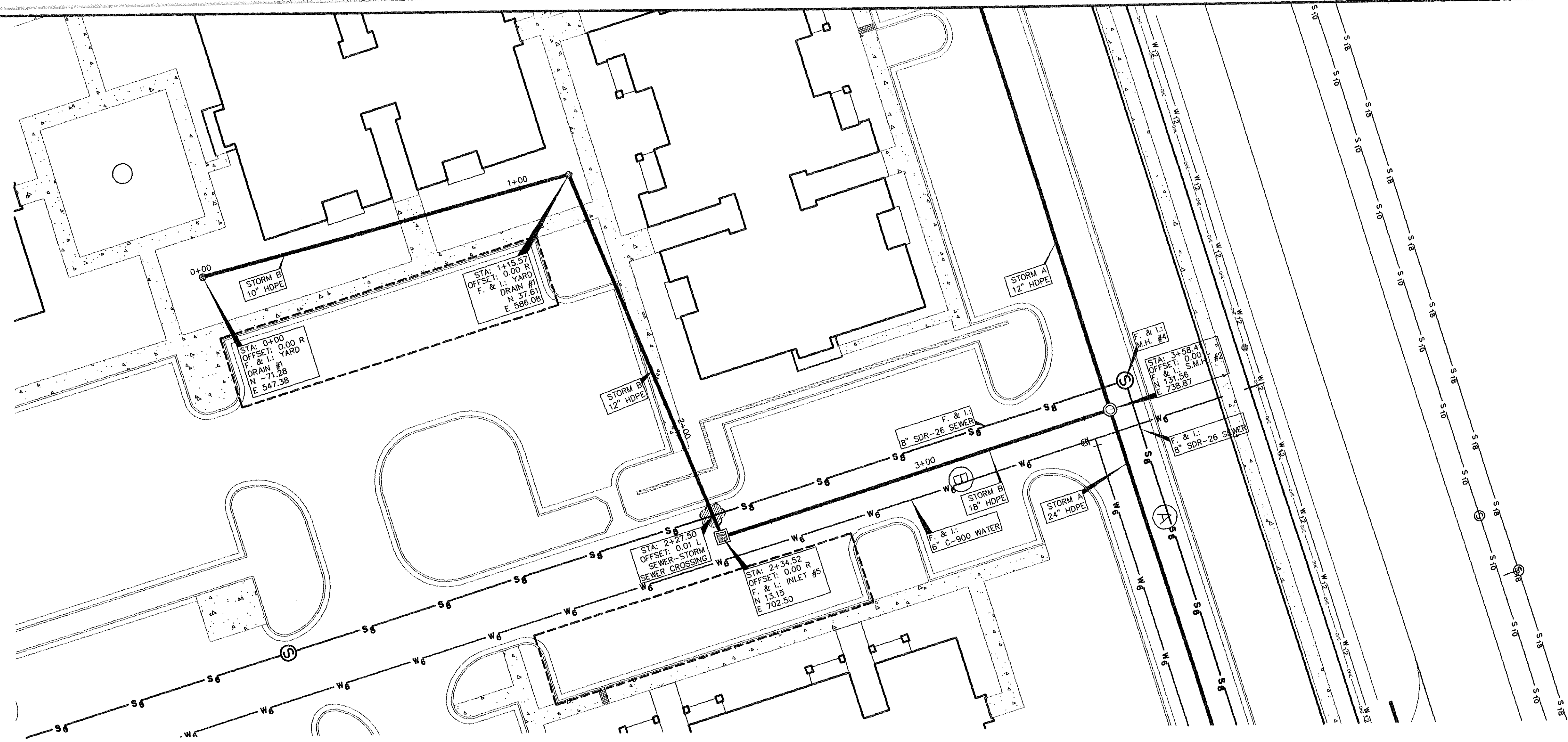
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REMARKS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

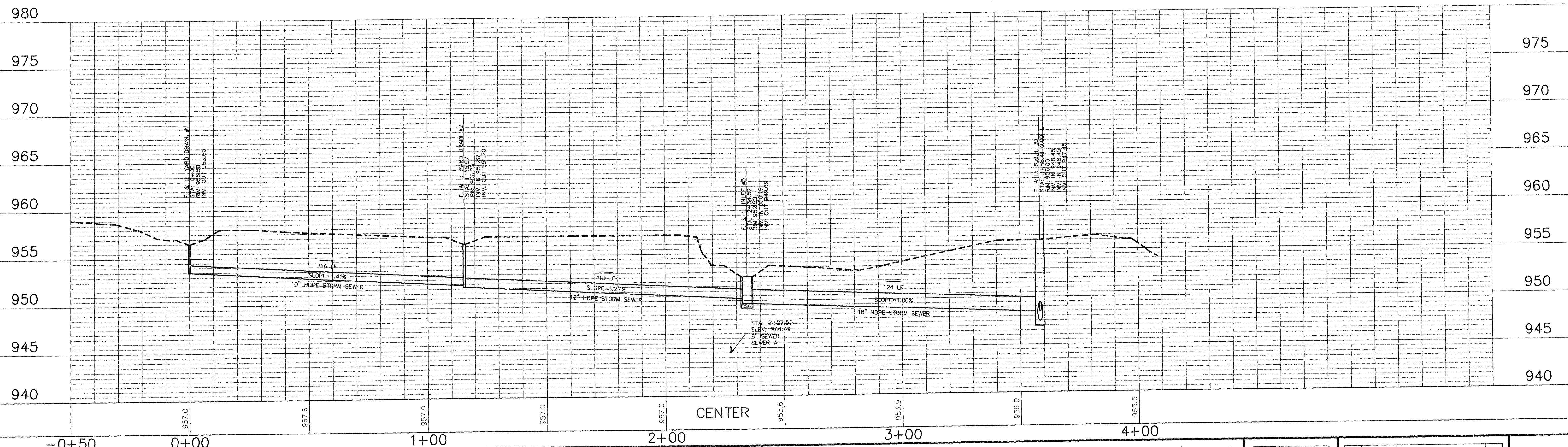
**SHEET
C6.3 of C6.13**

I.D. 1795

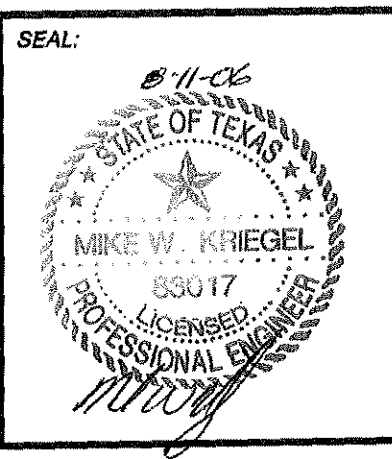
DWG. 06-201-D



SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING
102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**STORM SYSTEM B
PLAN & PROFILE**

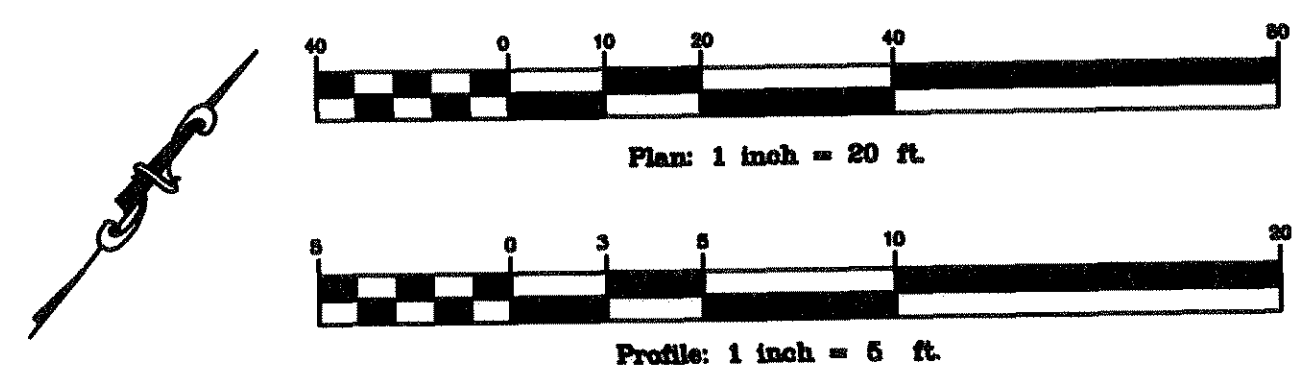
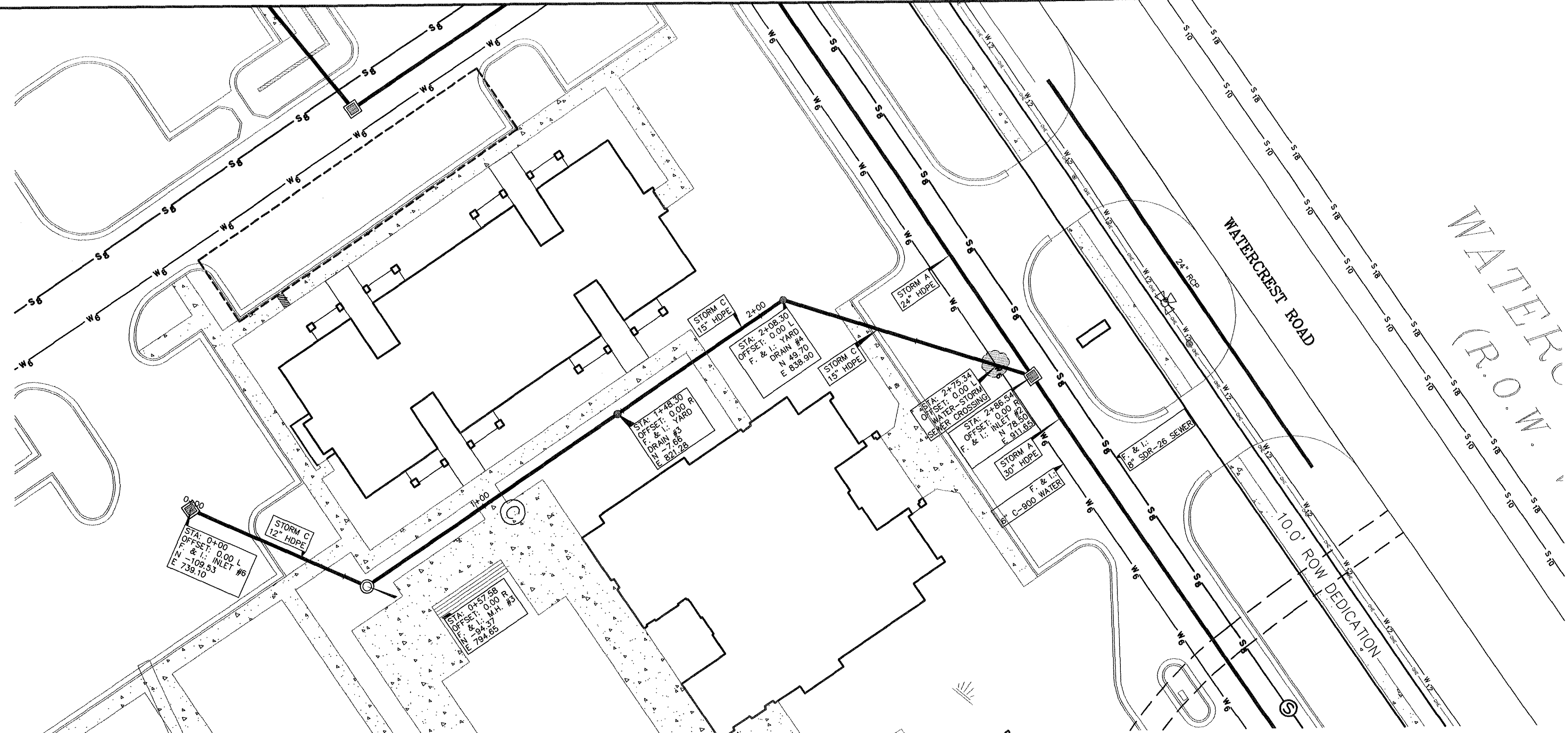
DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
KILLEEN, BELL COUNTY, TEXAS

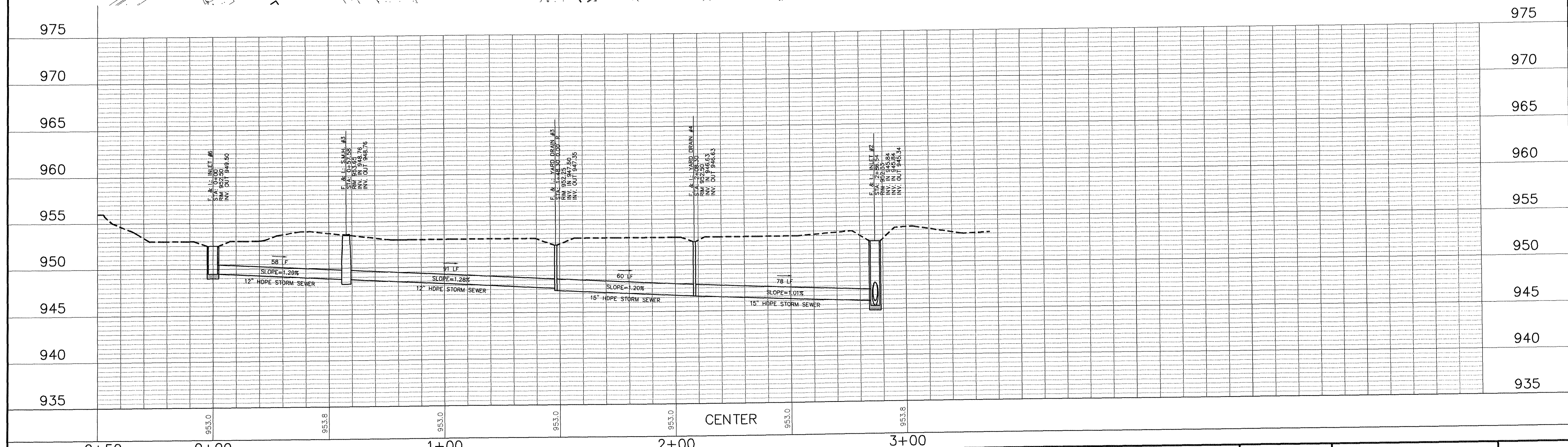
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REMARKS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ
REVISIONS			

**SHEET
C6.4 OF C6.13**
I.D. 1795
DWG. 06-201-D

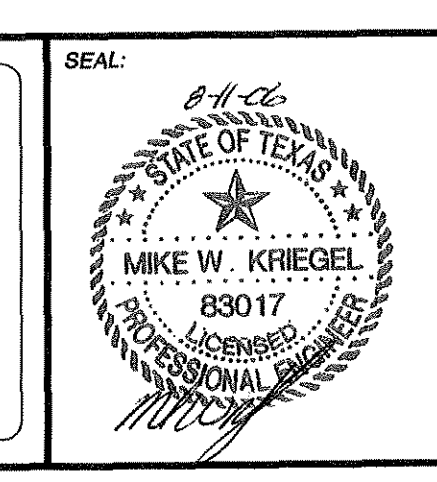


SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

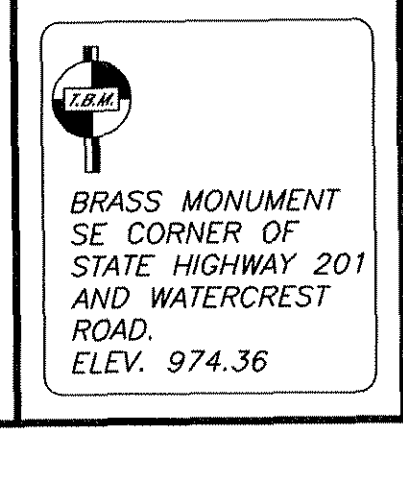


SHEET TITLE:
**STORM SYSTEM C
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

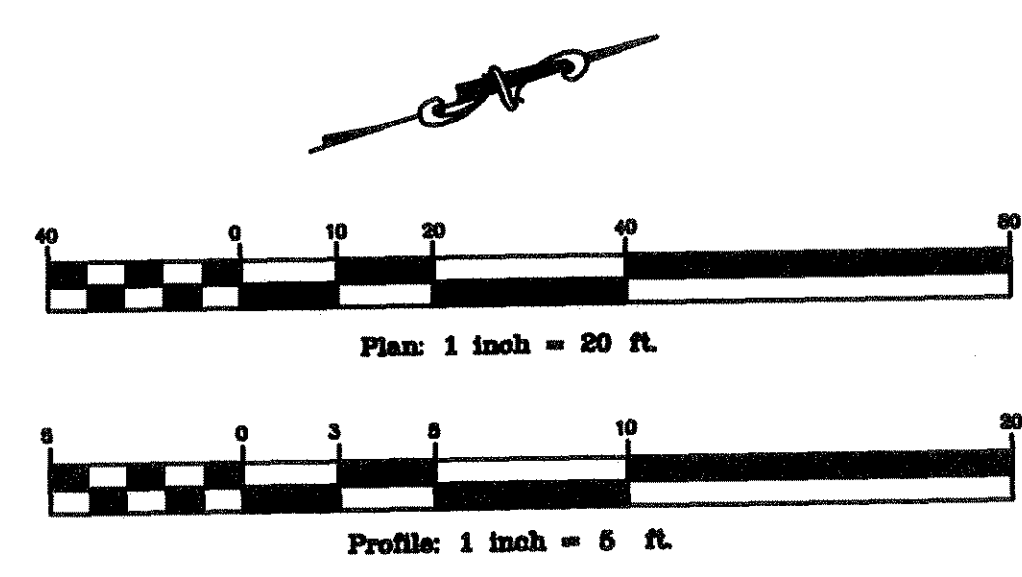
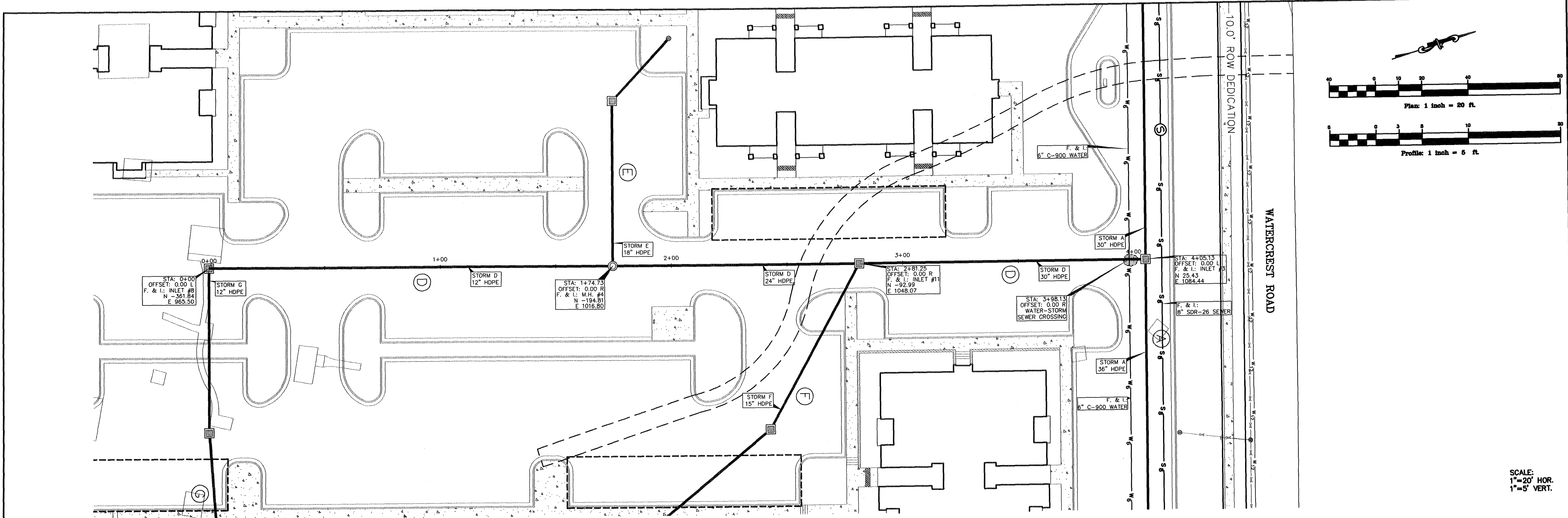


No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

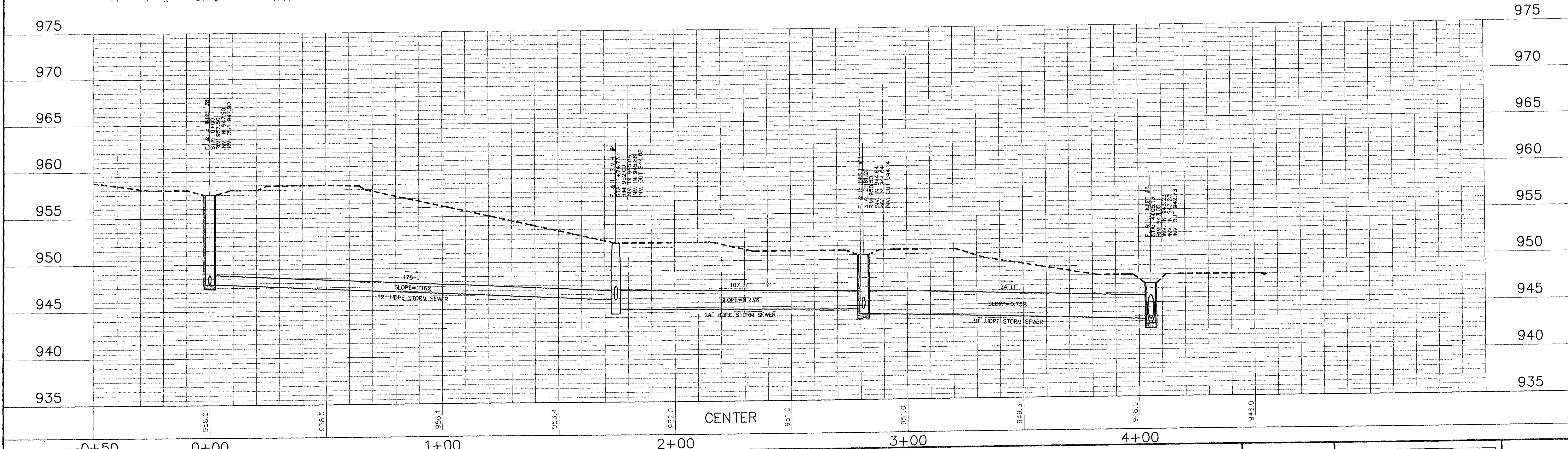
SHEET
C6.5 OF C6.13

I.D. 1795

DWG. 06-201-D

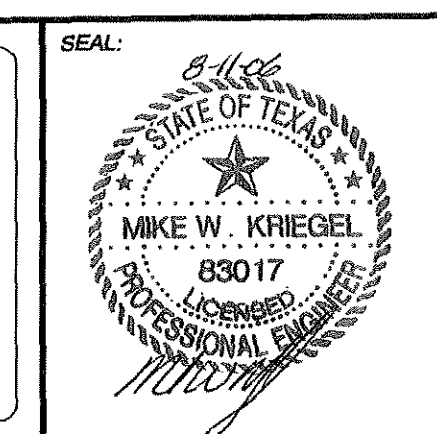


SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

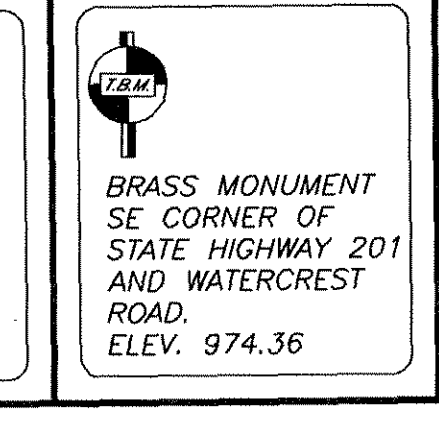


SHEET TITLE:
**STORM SYSTEM D
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

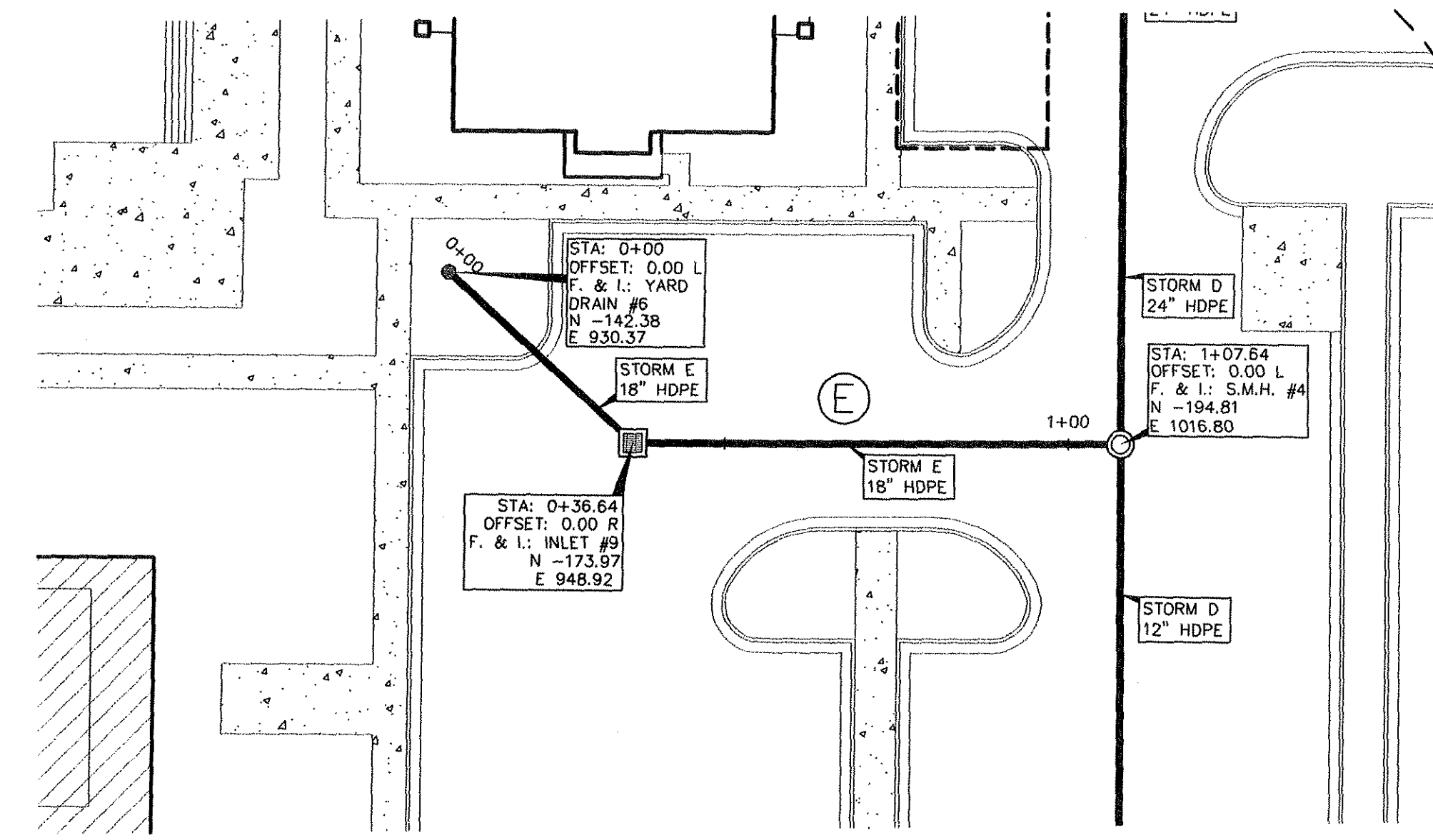
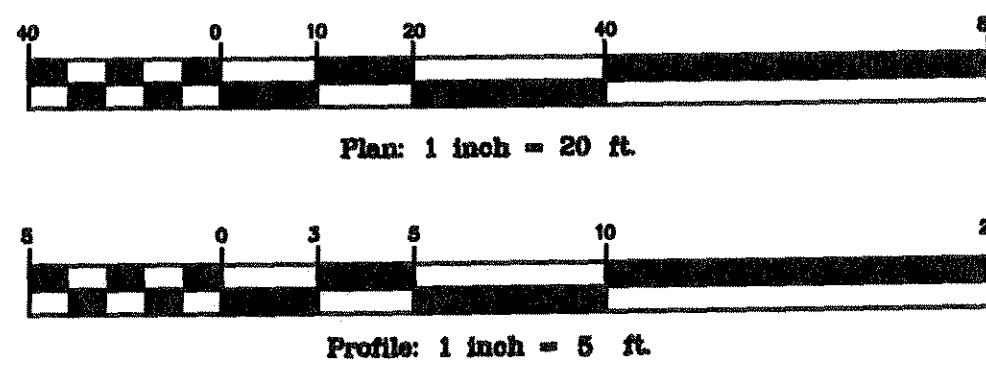


No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

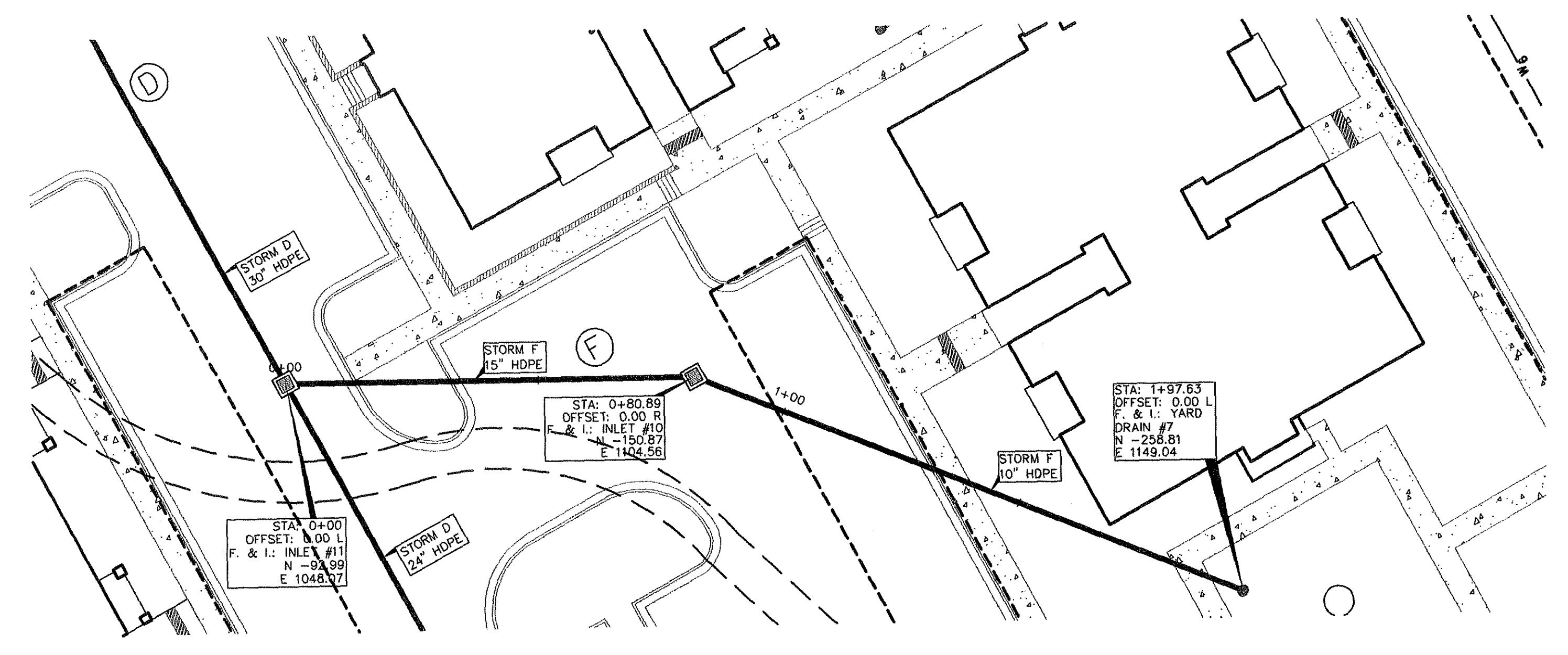
SHEET
C6.6 OF C6.13

I.D. 1795

DWG. 06-201-D

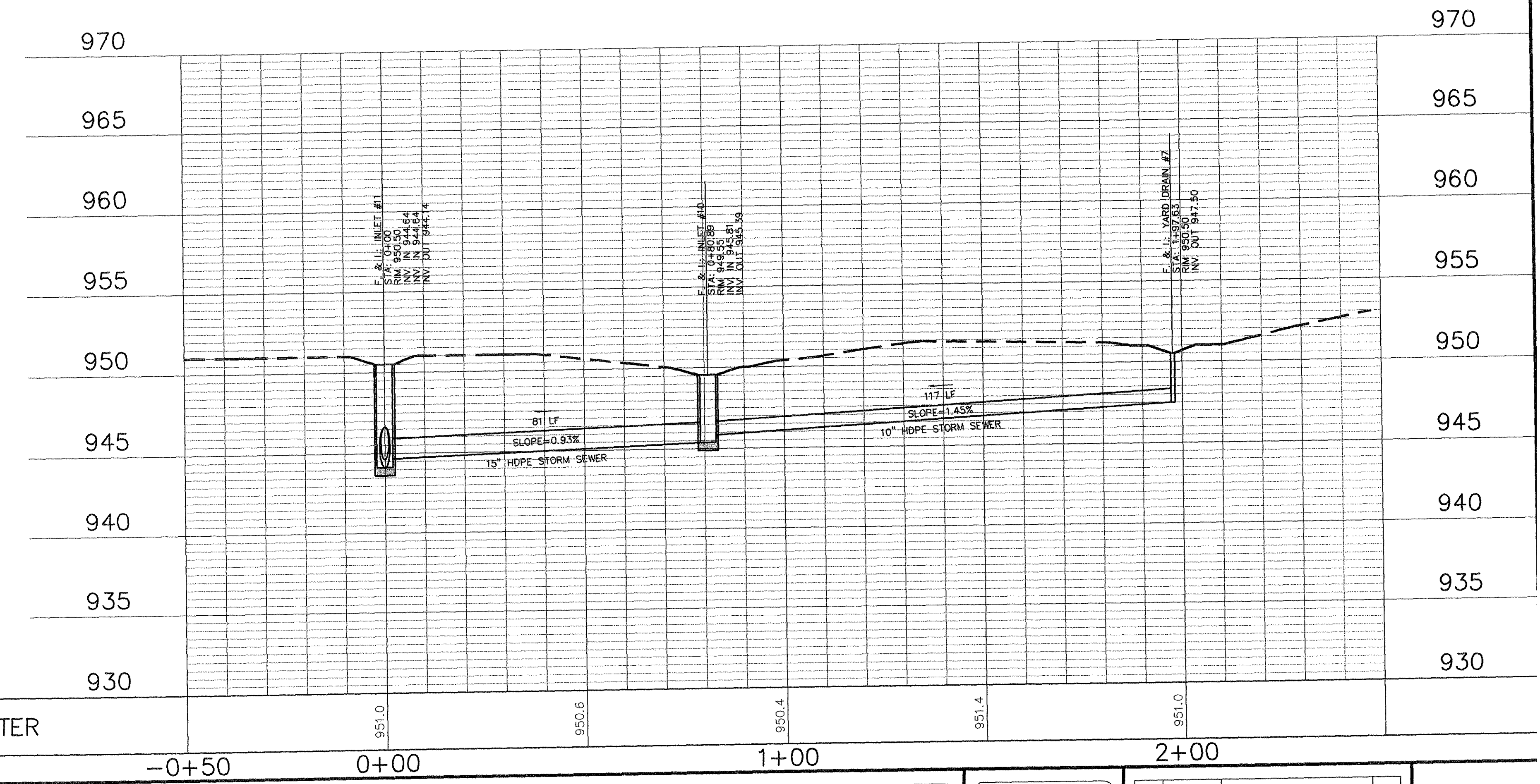
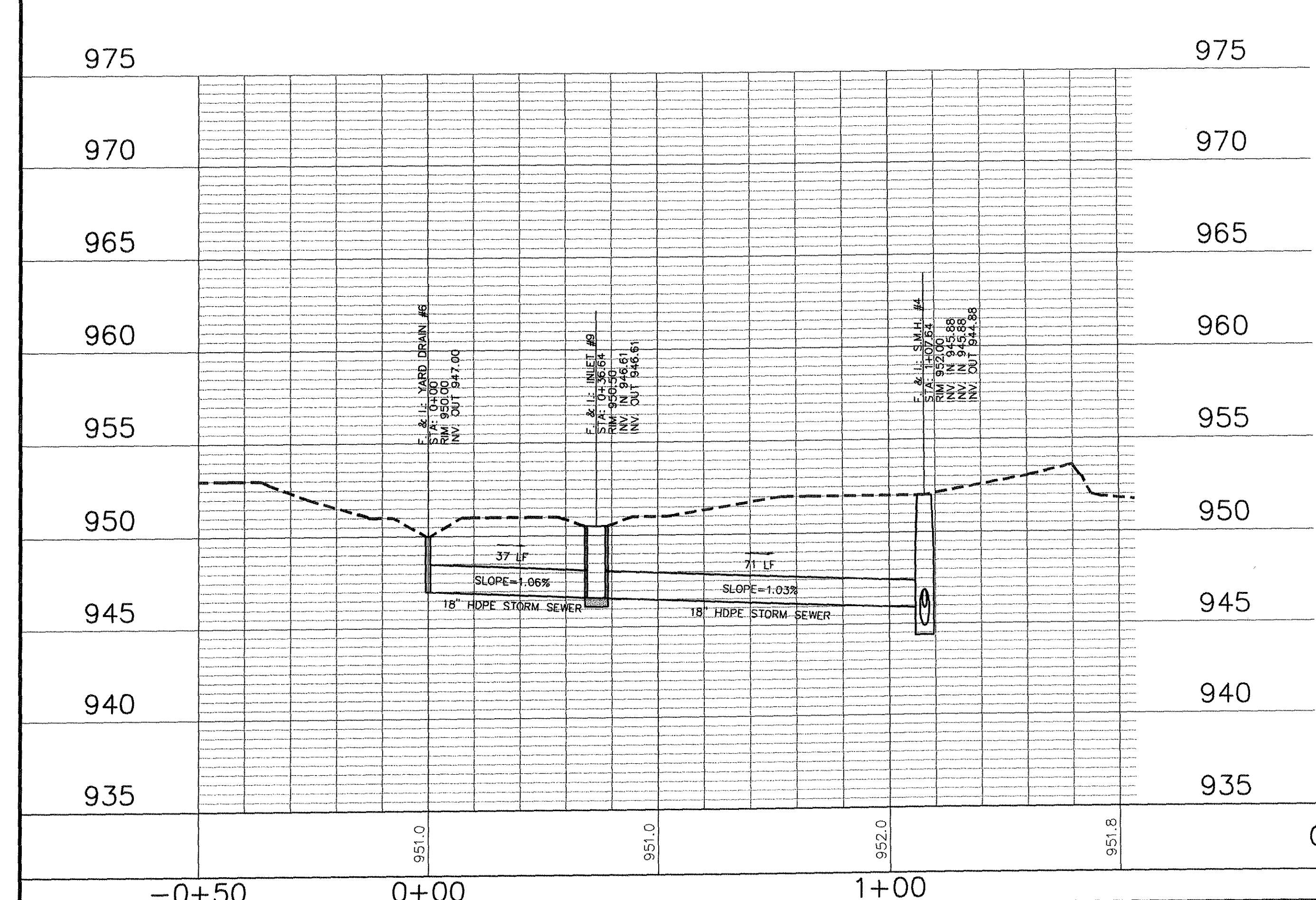


STORM SYSTEM E



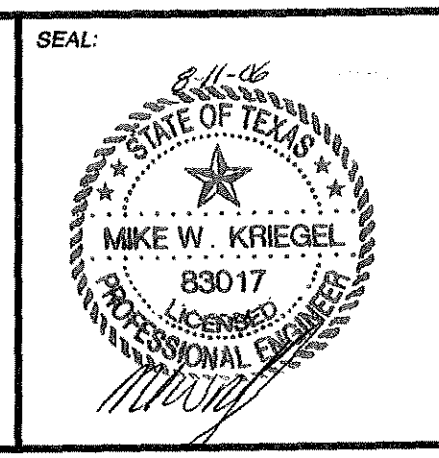
STORM SYSTEM F

SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

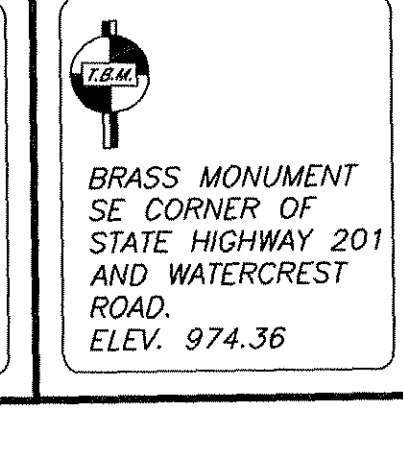


SHEET TITLE:
**STORM SYSTEMS E & F
PLAN & PROFILE**

DRAWN BY: FRB/GEJ DATE: JUNE 2006 SCALE: AS SHOWN FB-LB: ***** REF-L/B: ***** CLIENT: PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

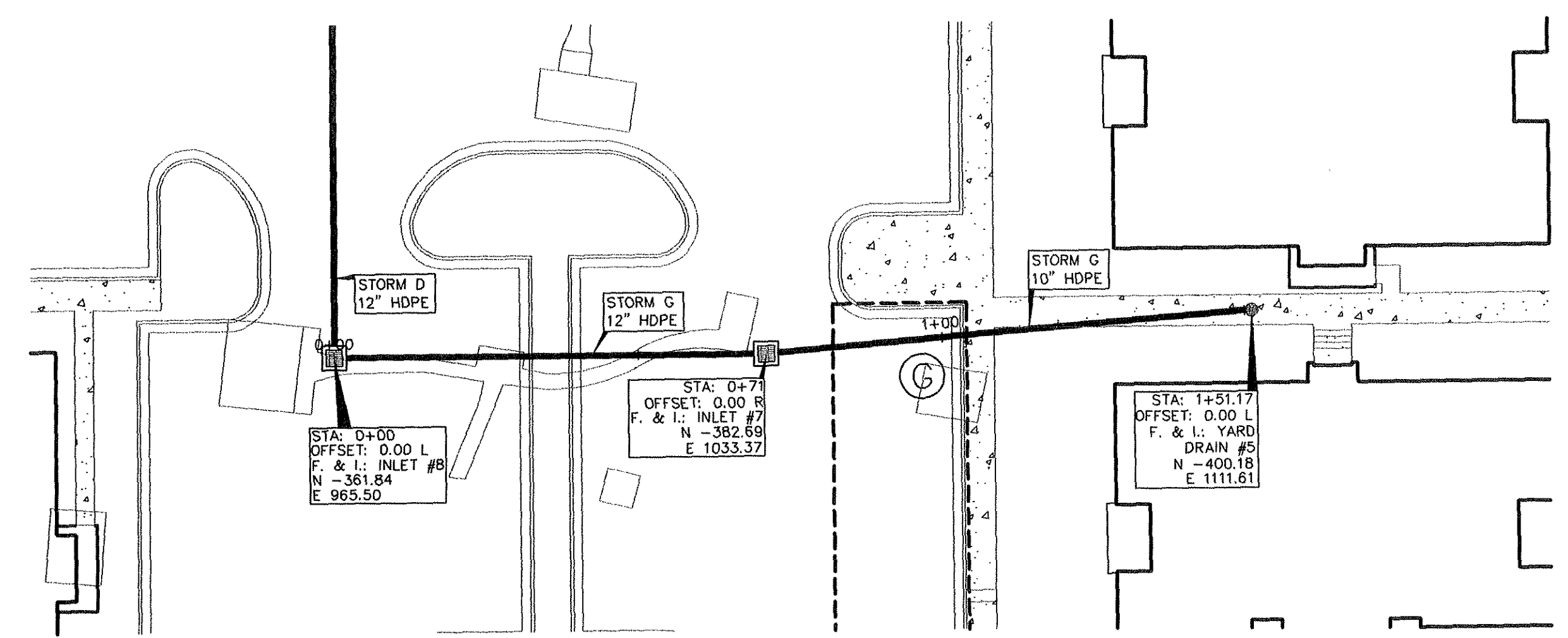
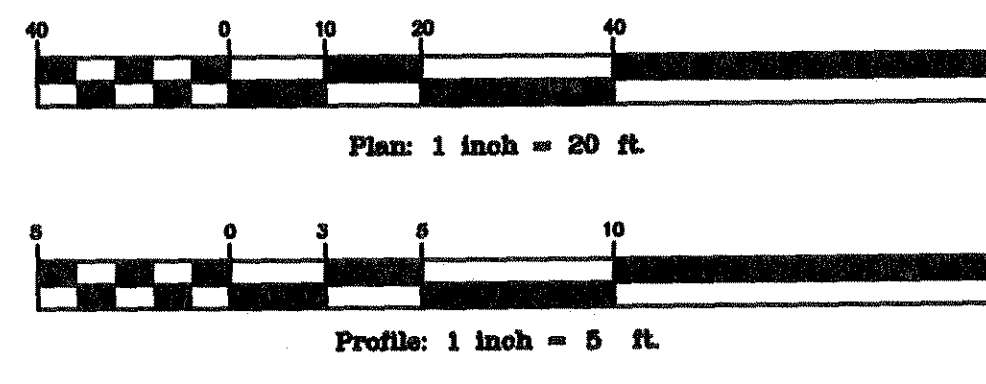


No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

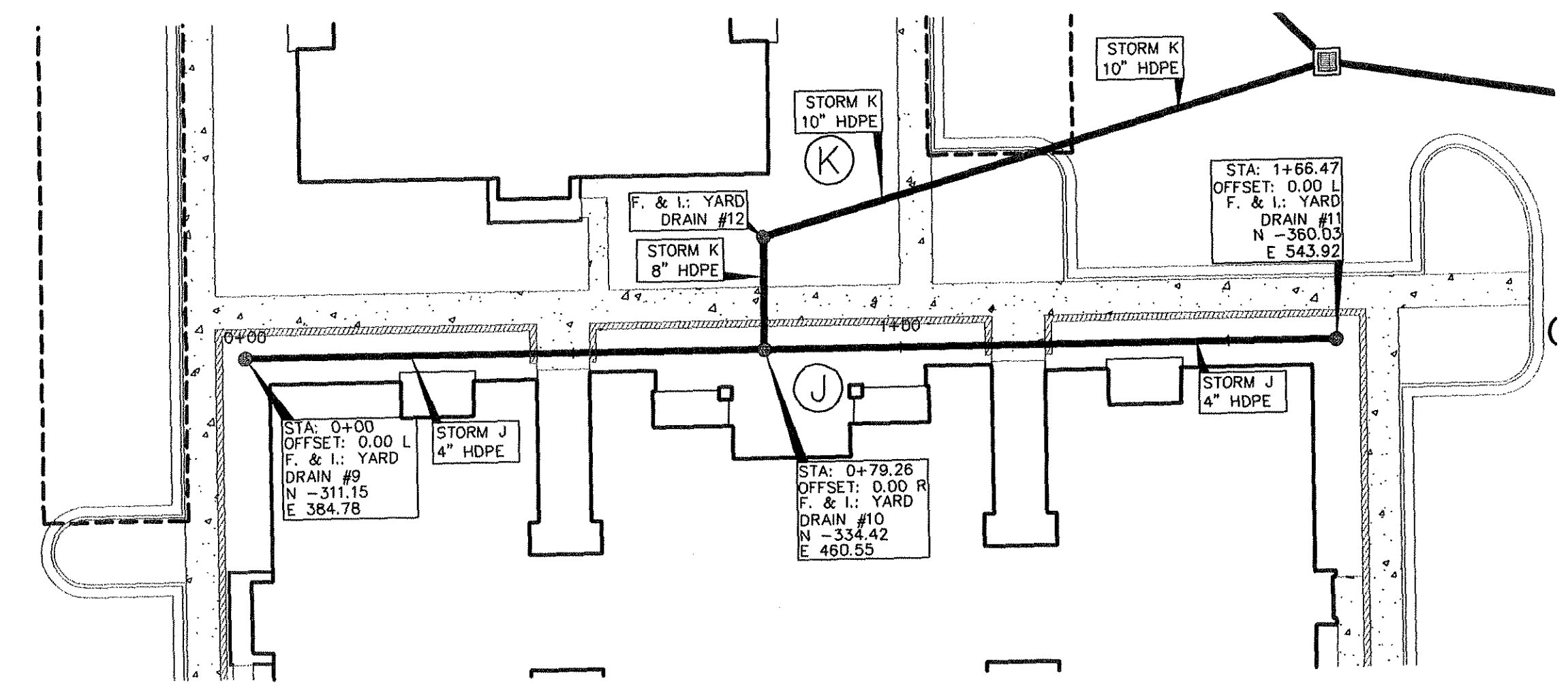
SHEET
C6.7 of C6.13

I.D. 1795

DWG. 06-201-D

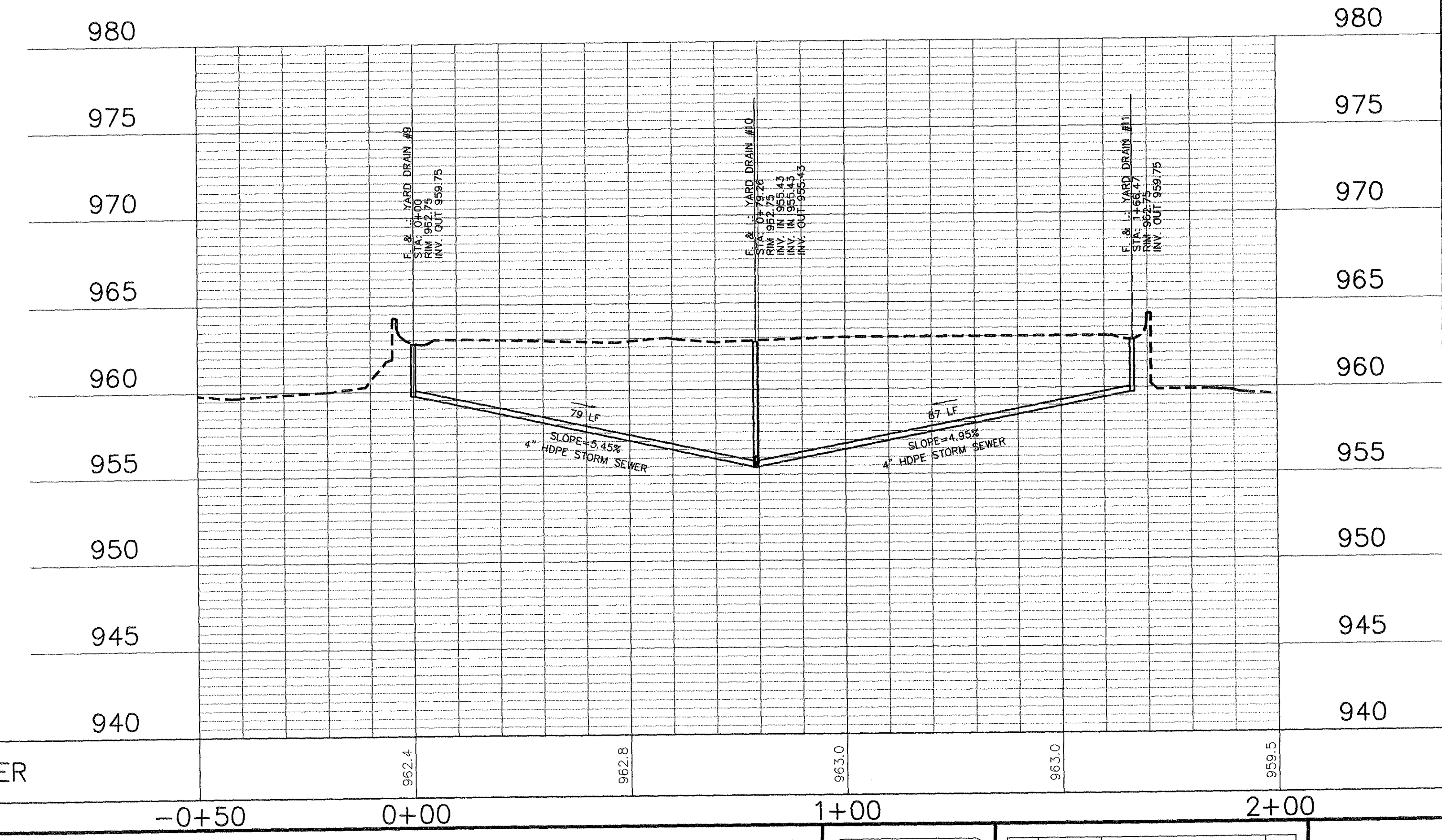
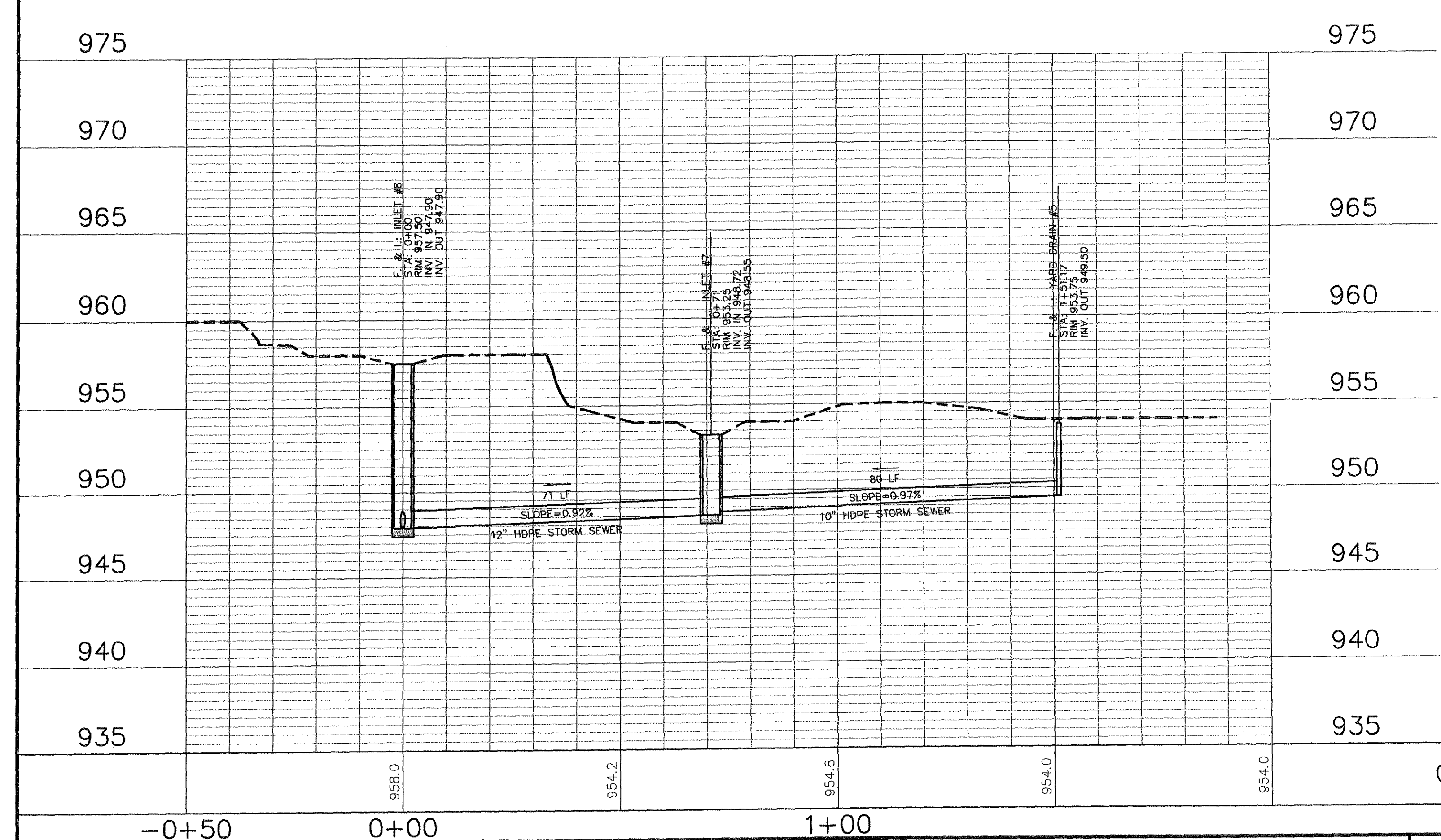


STORM SYSTEM G



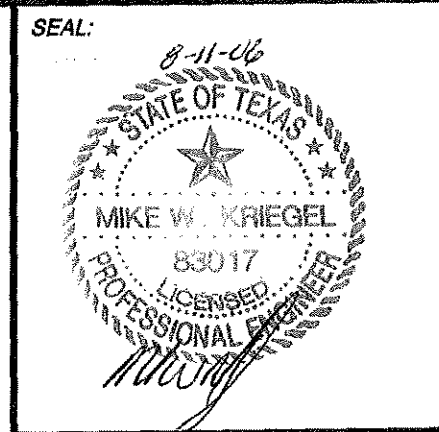
STORM SYSTEM J

SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

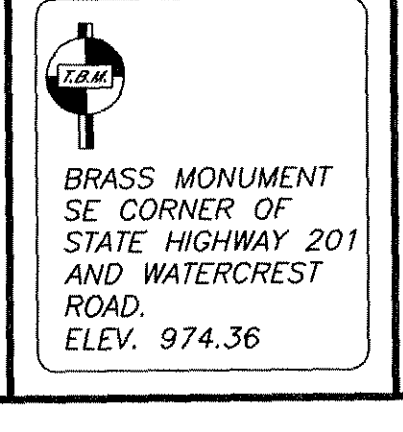
102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**STORM SYSTEMS G & J
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
KILLEEN, BELL COUNTY, TEXAS

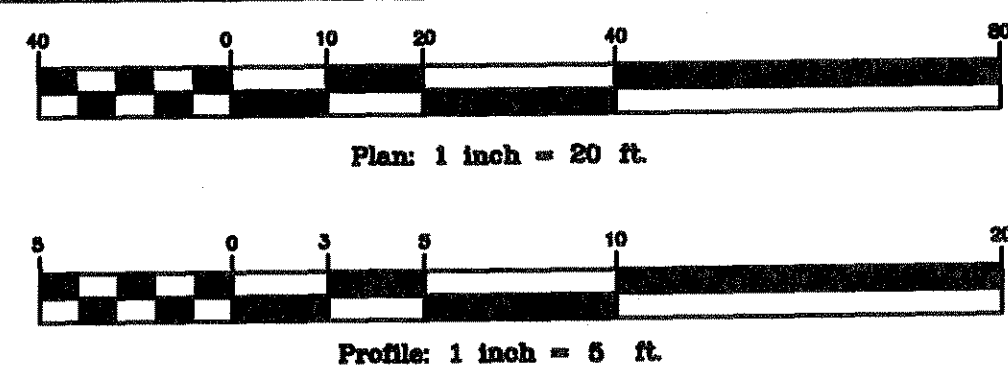
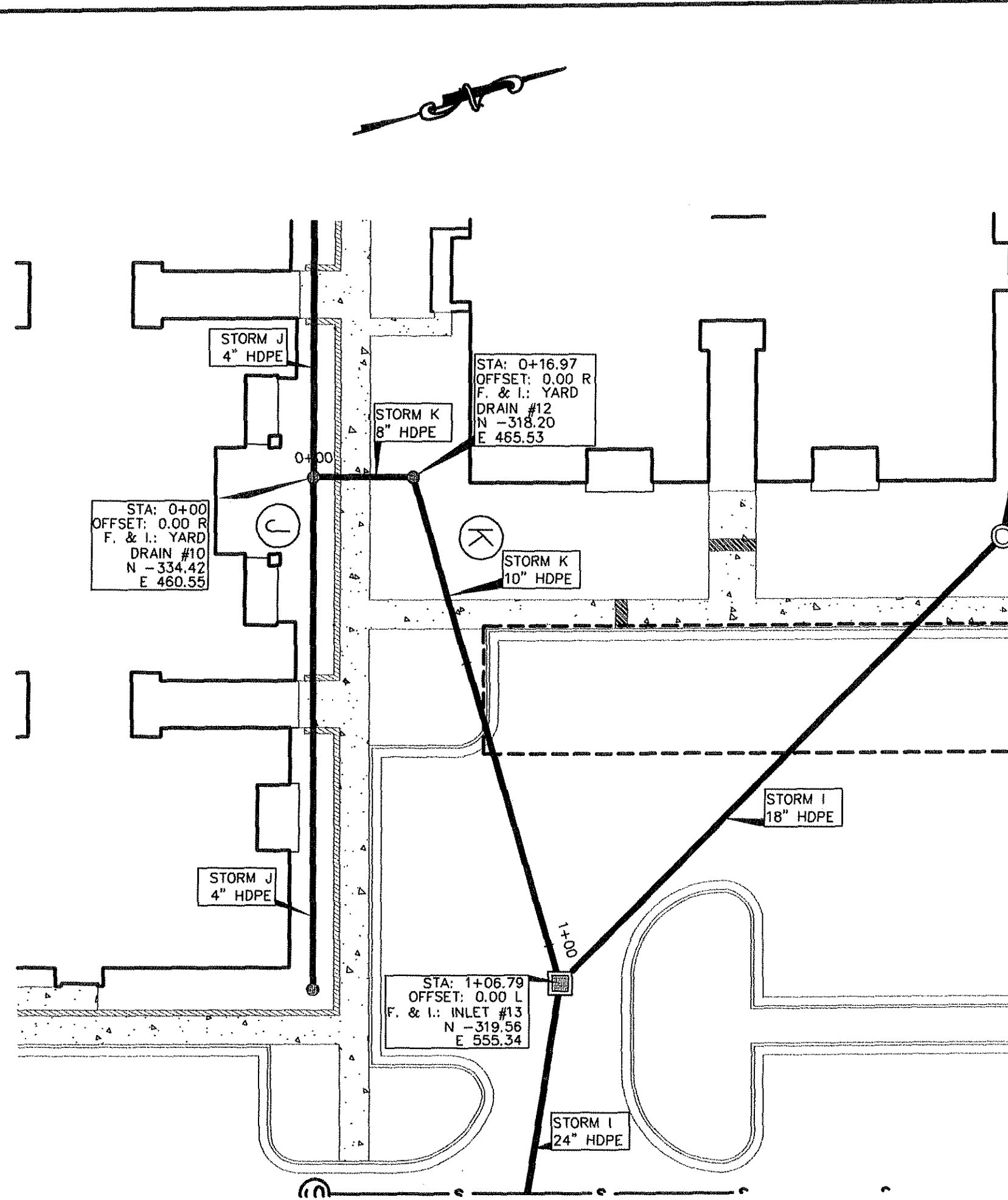


No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

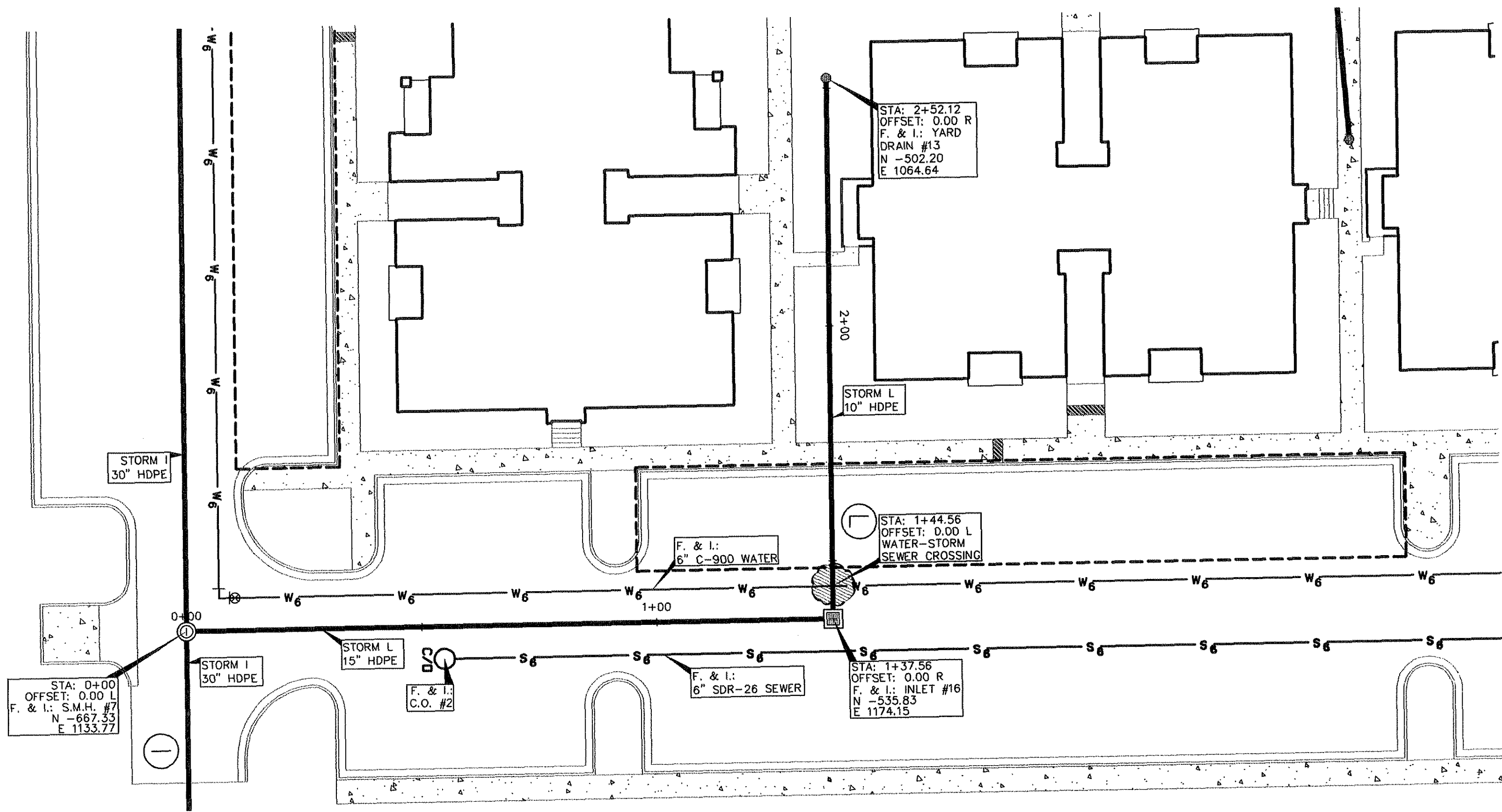
SHEET
C6.8 OF C6.13

I.D. 1795

DWG. 06-201-D

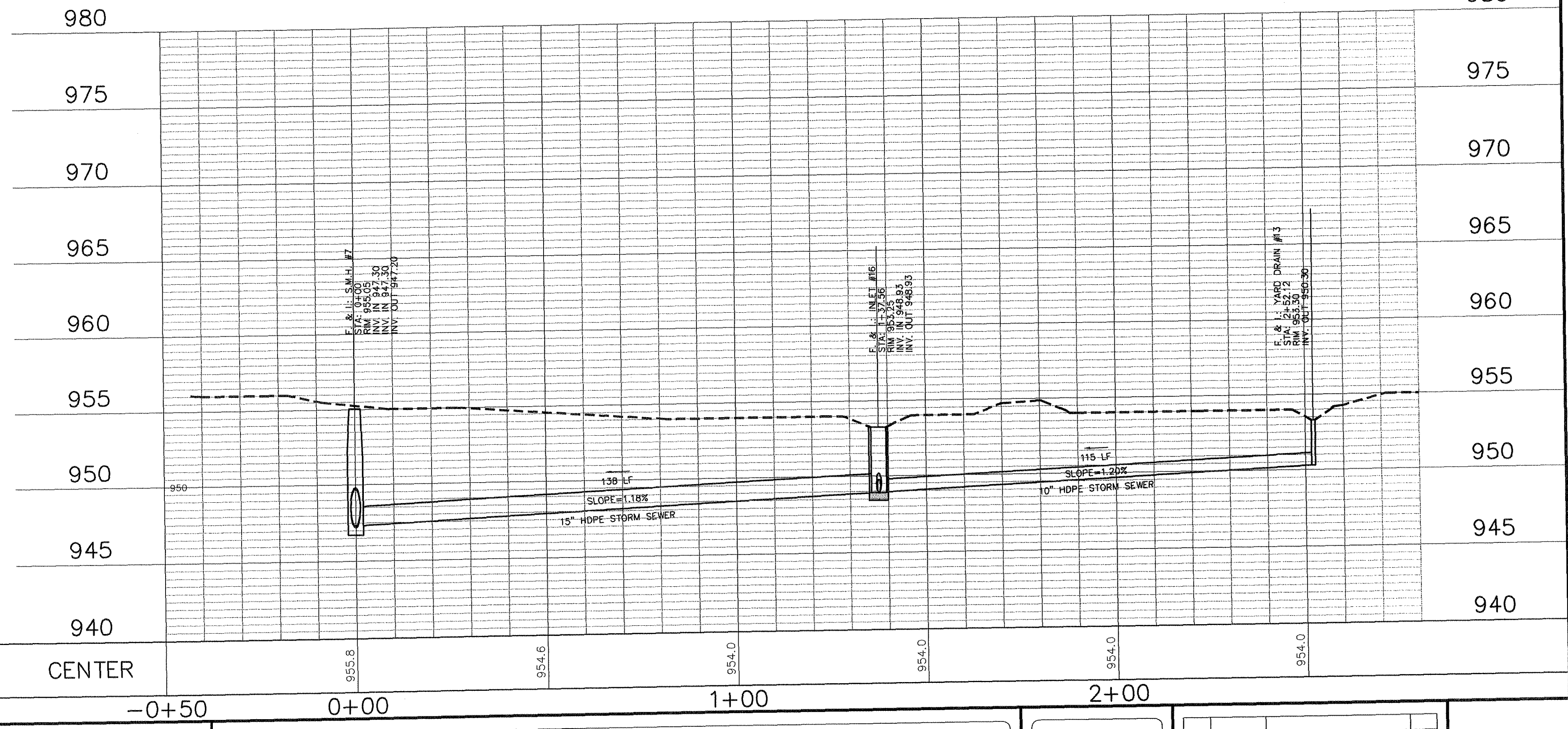
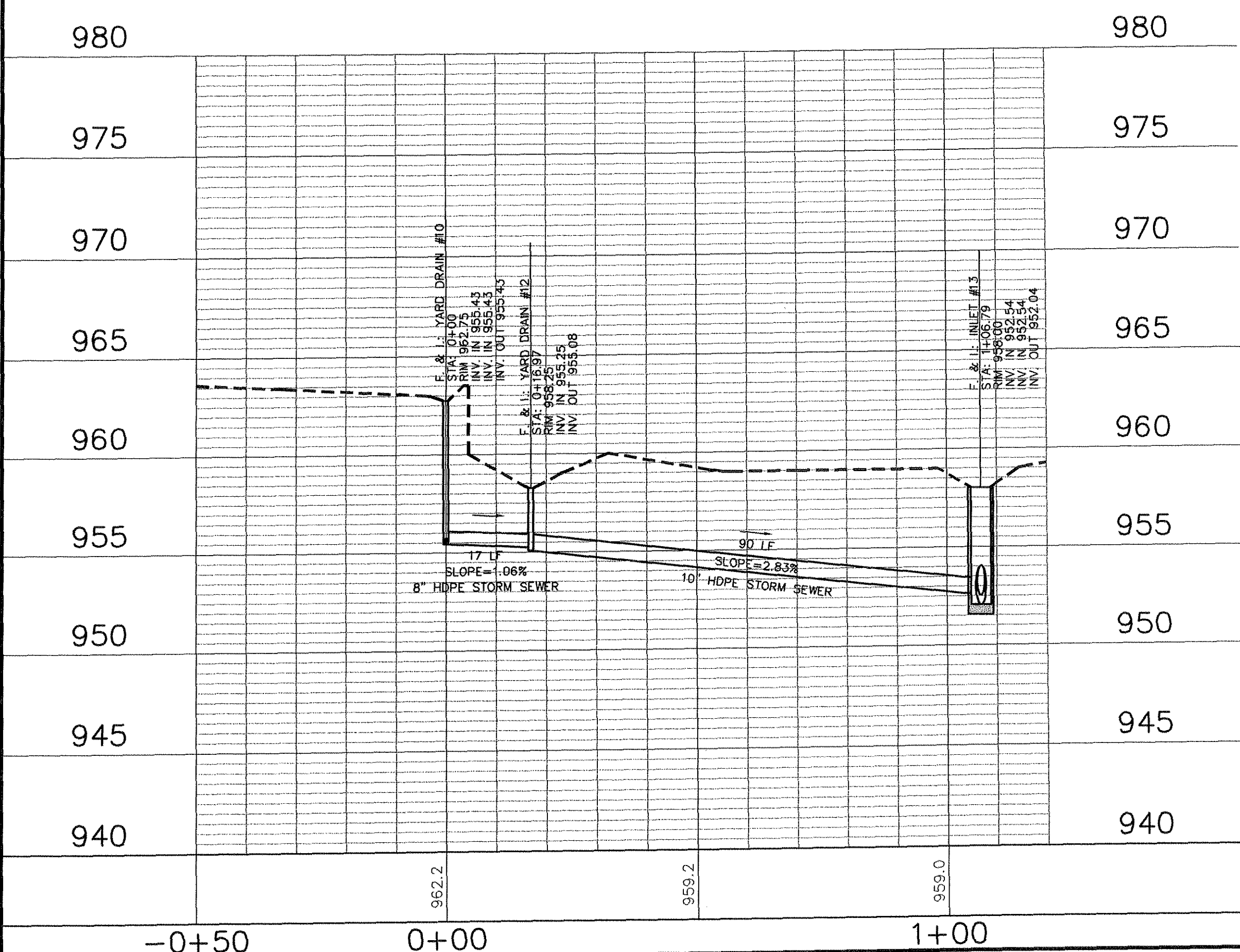


STORM SYSTEM K



STORM SYSTEM L

SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: **STORM SYSTEMS K & L
PLAN & PROFILE**

DRAWN BY: FRB/GEJ	DATE: JUNE 2006	SCALE: AS SHOWN	FB-LB: *****	REF-L/B: *****	CLIENT: PLACE PROPERTIES - MILITARY
-------------------	-----------------	-----------------	--------------	----------------	-------------------------------------

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

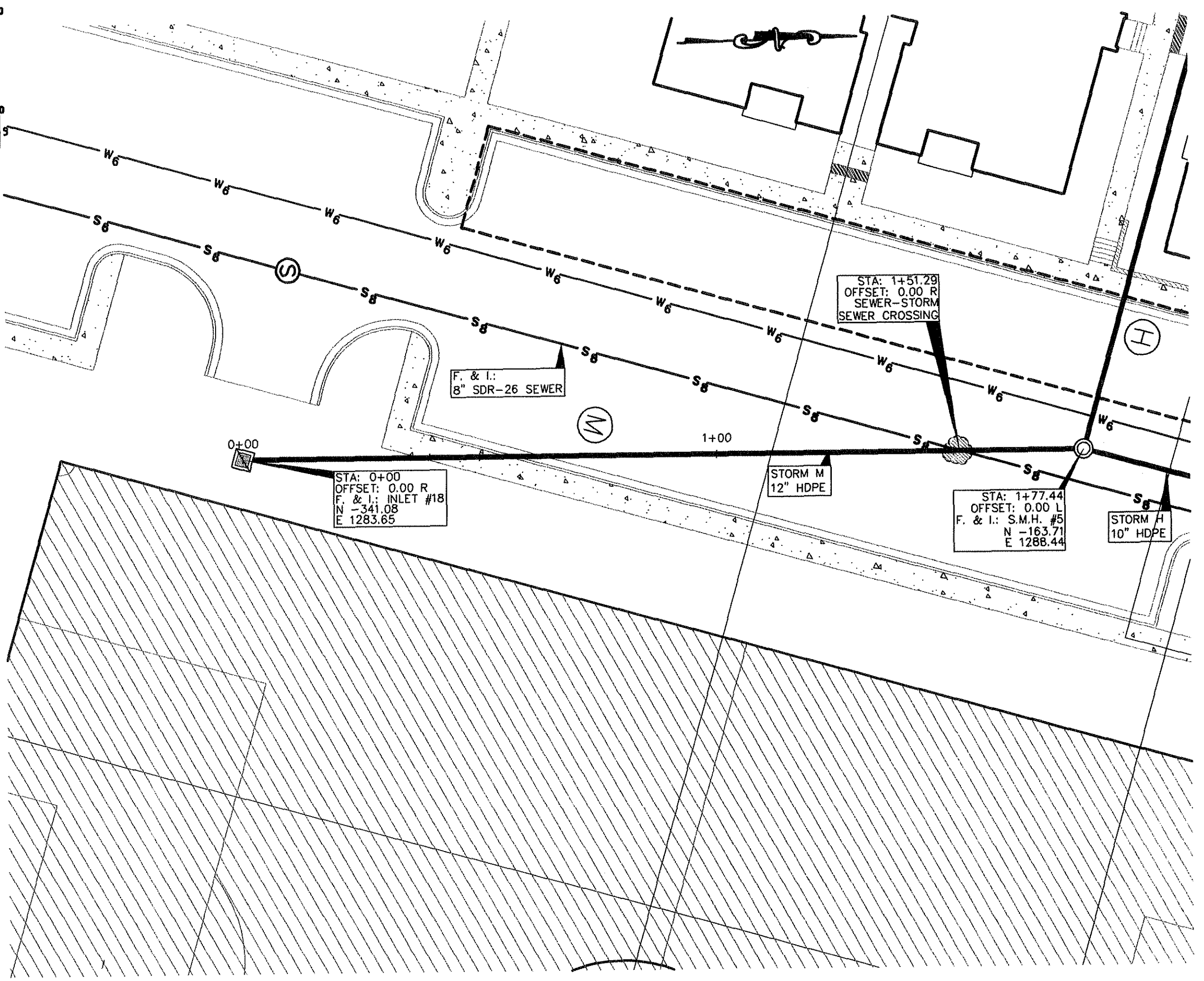
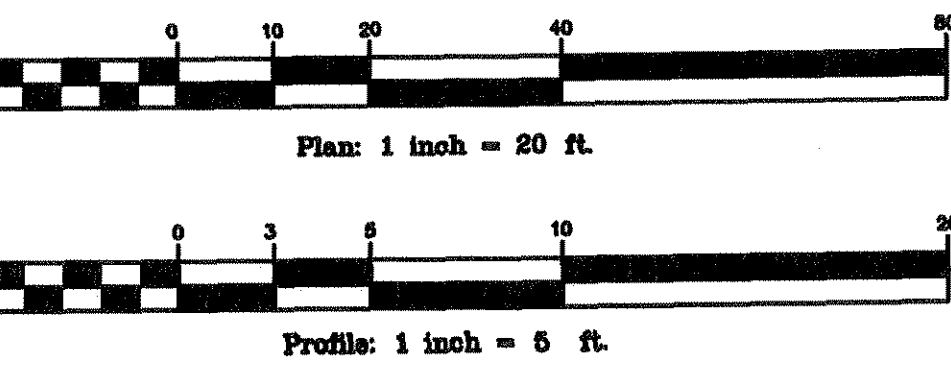
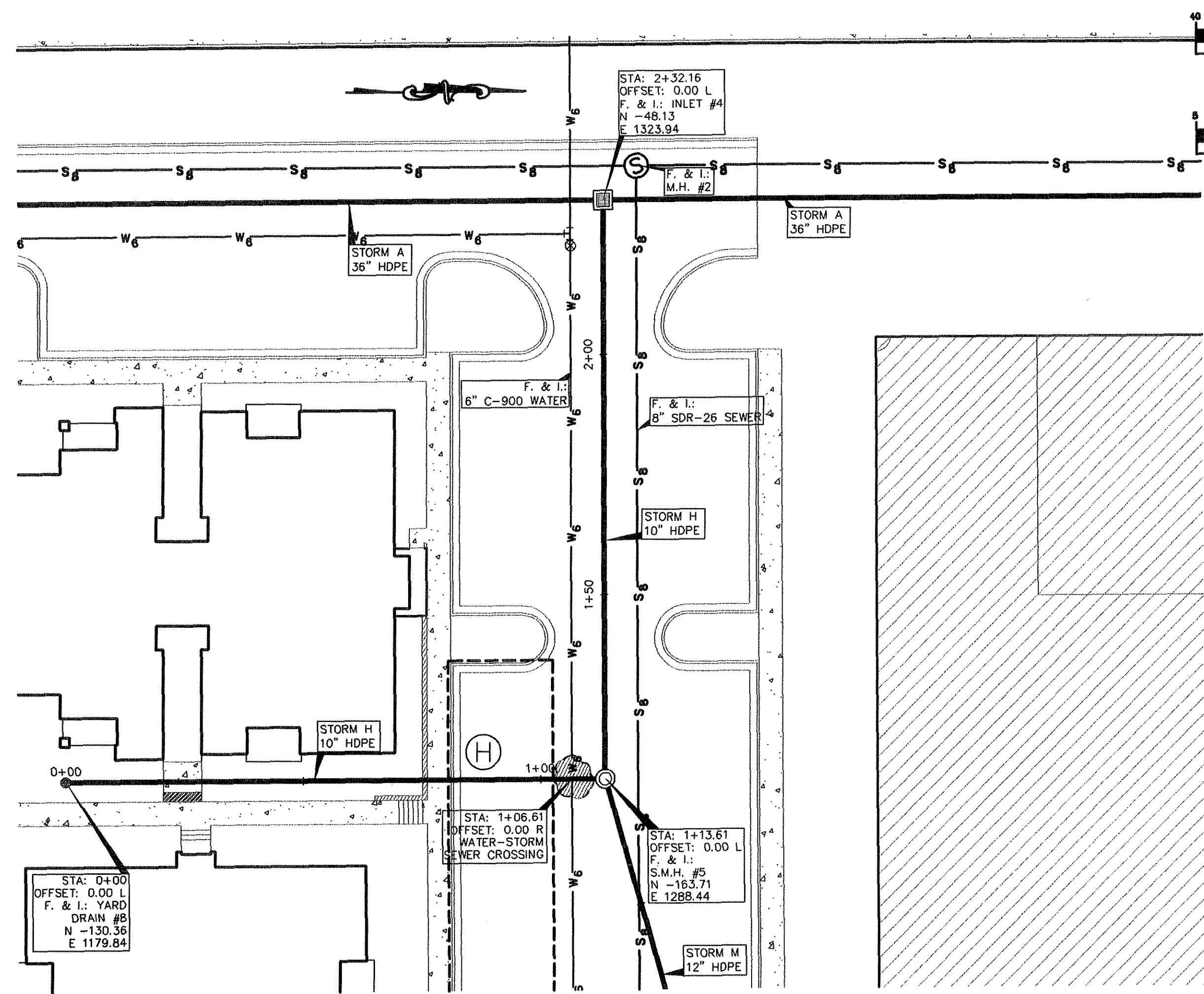
No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

SHEET
C6.9 OF C6.13

I.D. 1795

DWG. 06-201-D

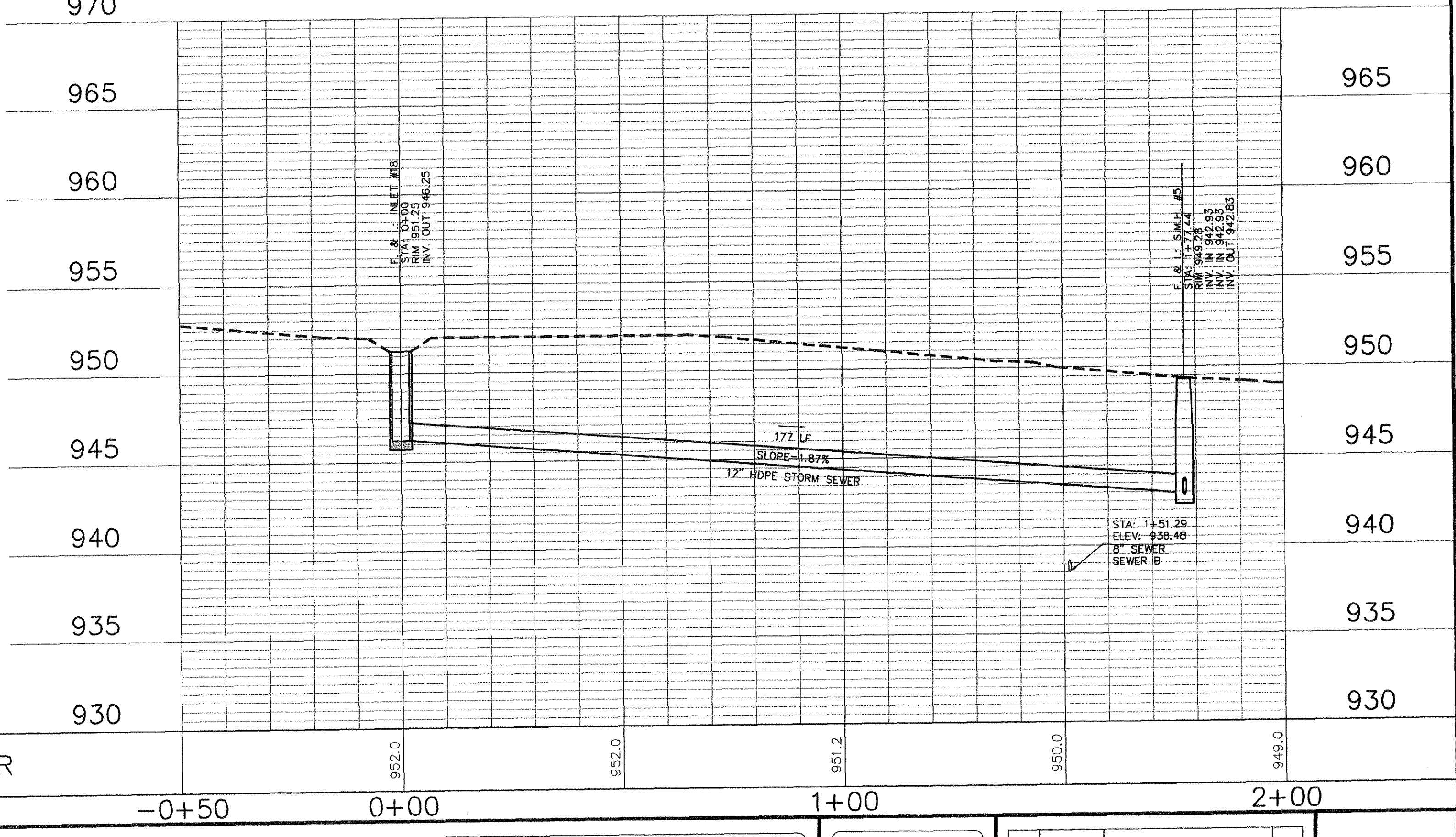
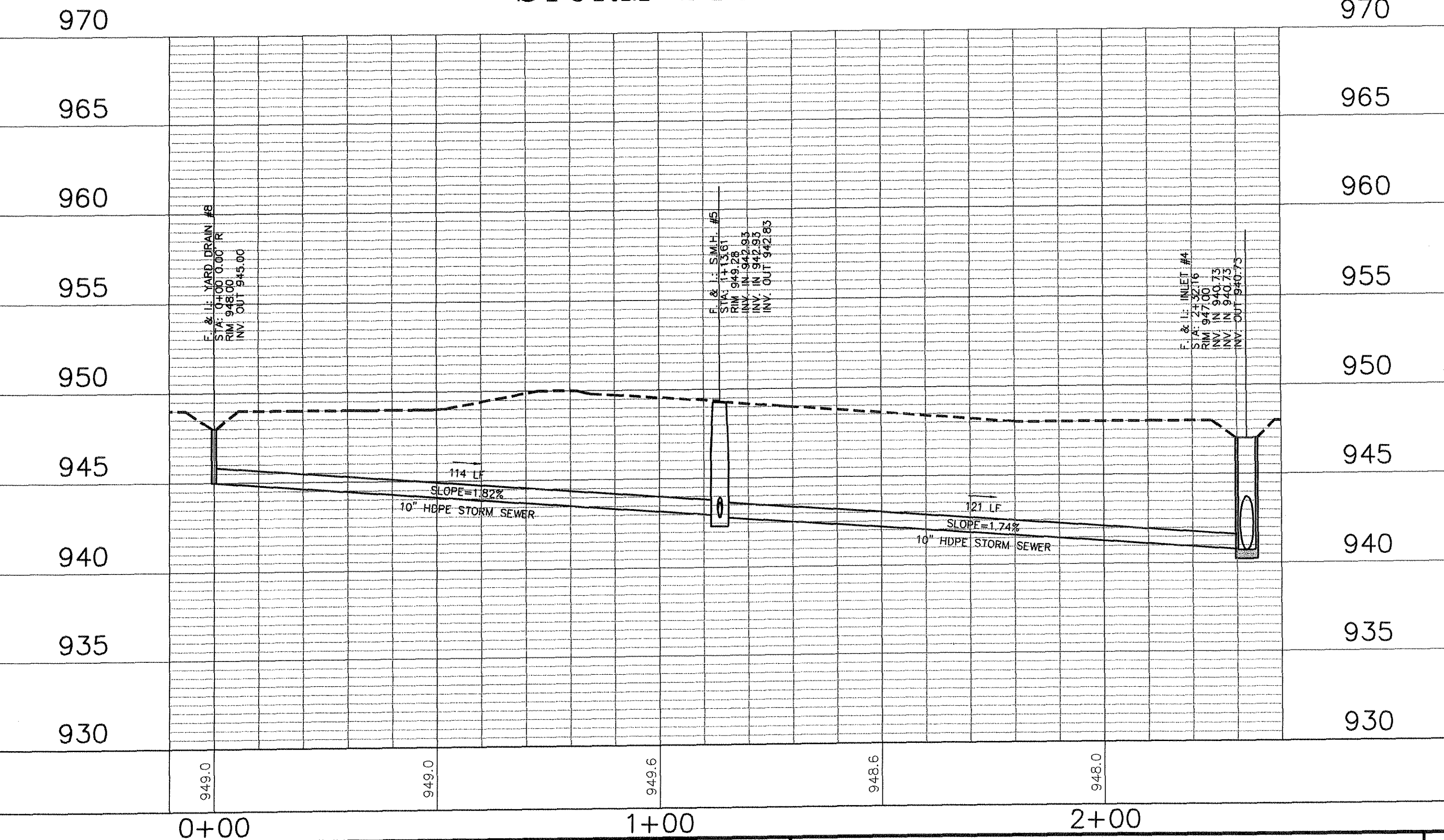
3:\CIVIL (COMMERCIAL)\2006\06-201 D (Place Properties)\dwg\Place Properties 06-201-D Pipes.dwg, STORM K-L+001, 8/10/2006 4:41:51 PM, rad4



SCALE:
1"=20' HOR.
1"=5' VERT.

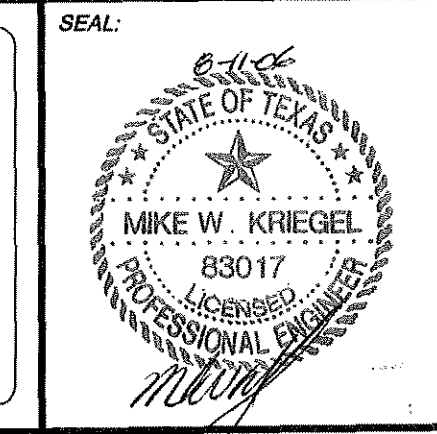
STORM SYSTEM H

STORM SYSTEM M



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: **STORM SYSTEM H & M PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

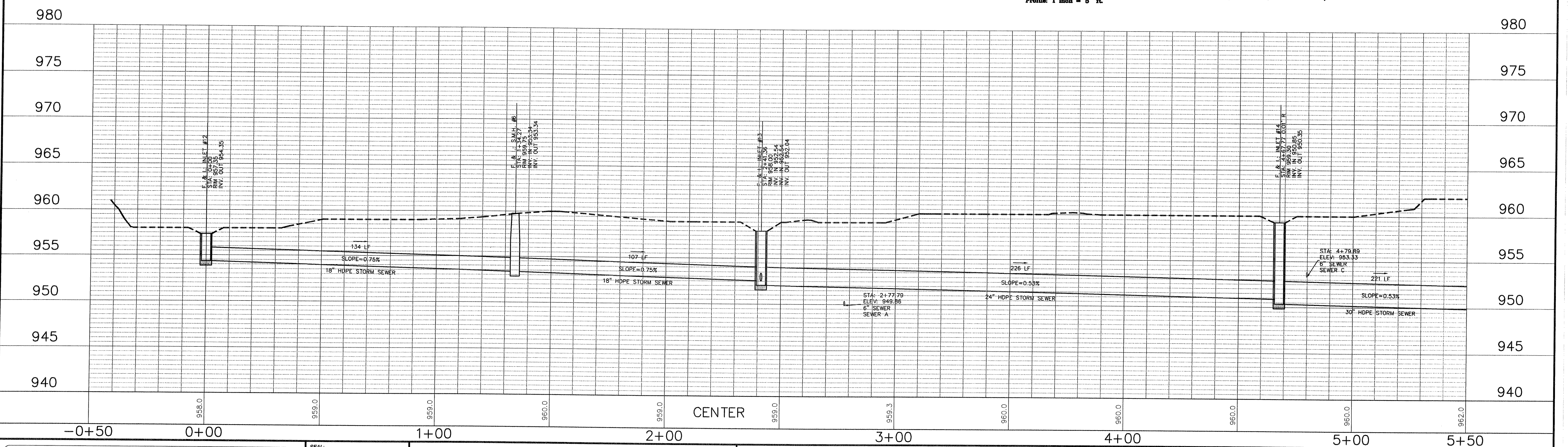
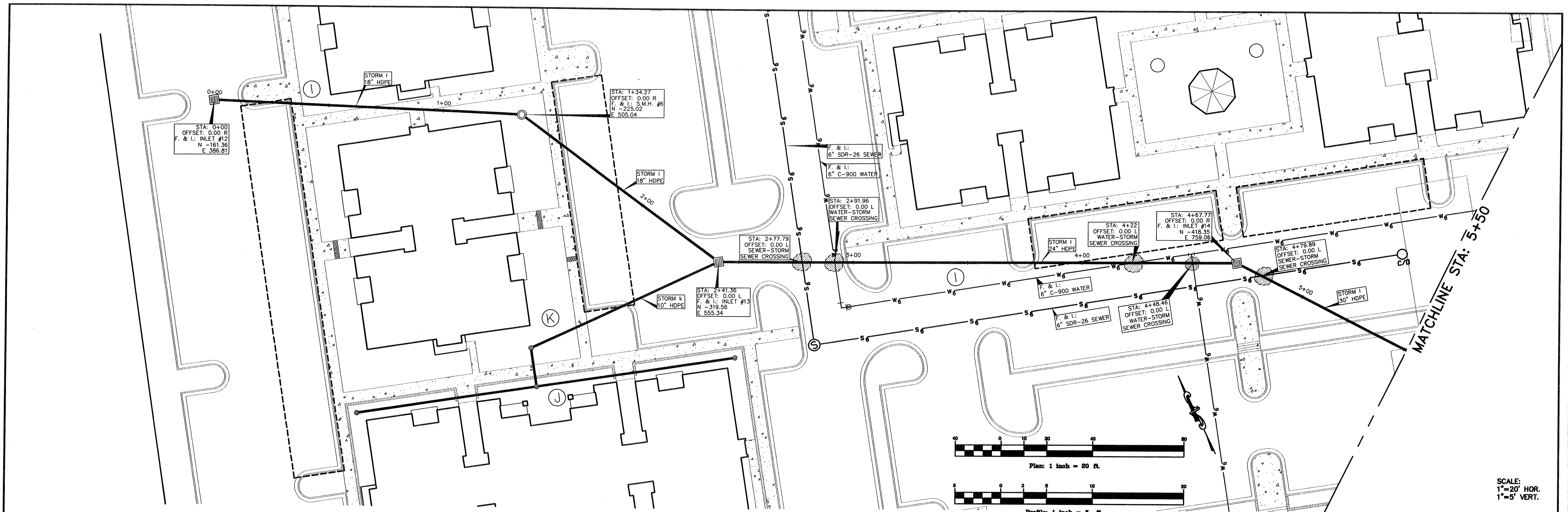
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REVISIONS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET
C6.10 OF C6.13

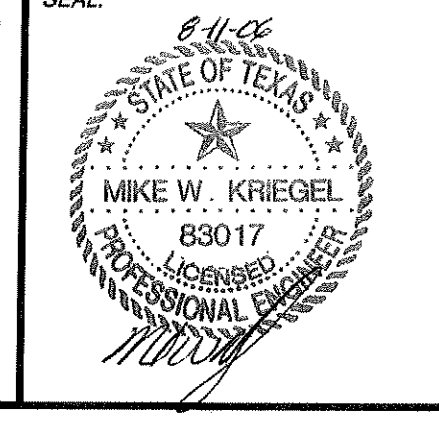
I.D. 1785

DWG. 06-201-D



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

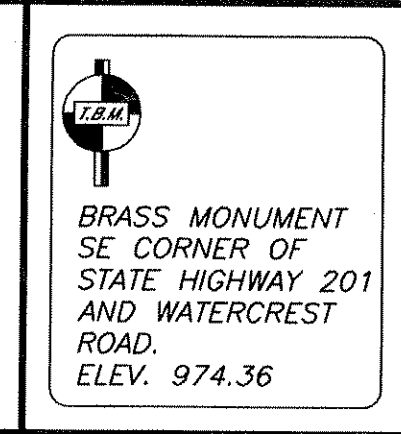


SHEET TITLE:
**STORM SYSTEM I
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

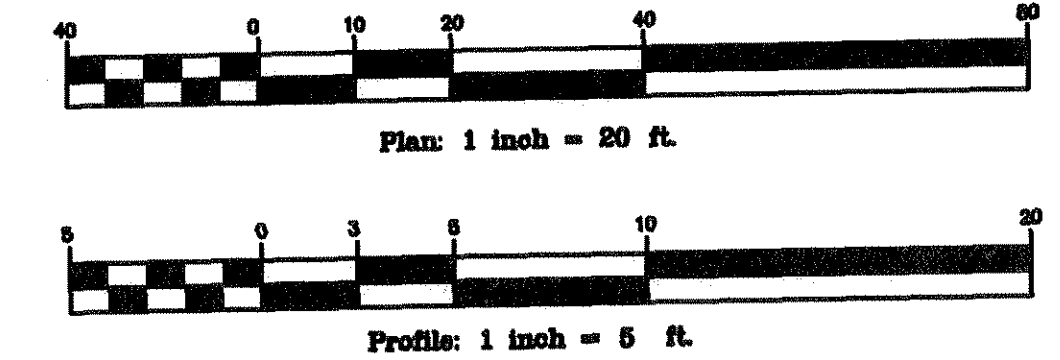
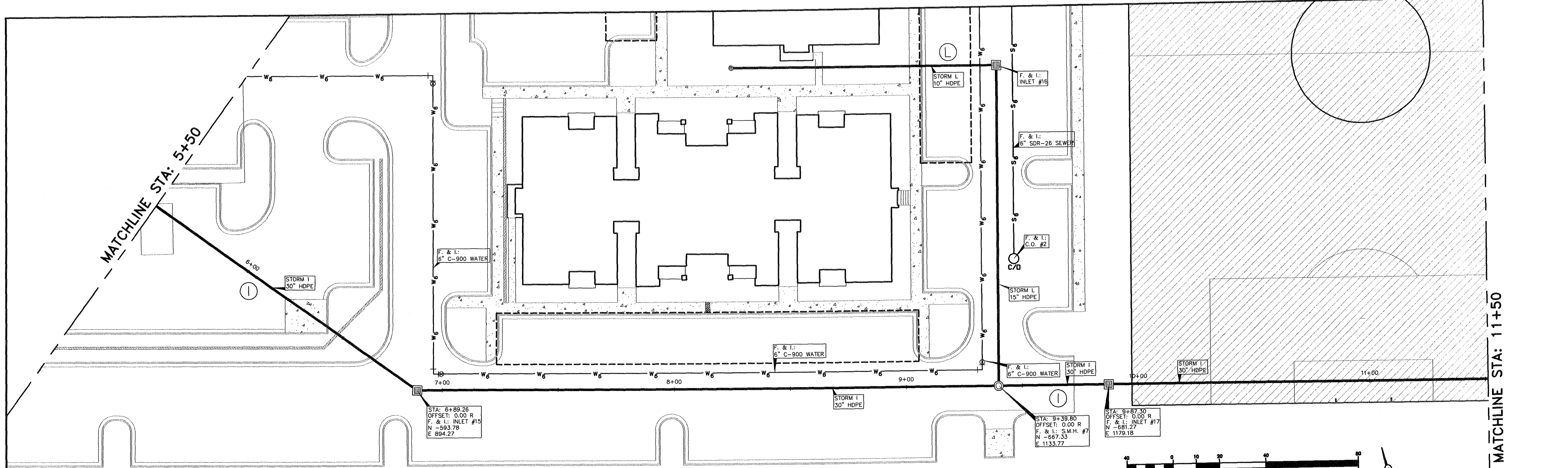


No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

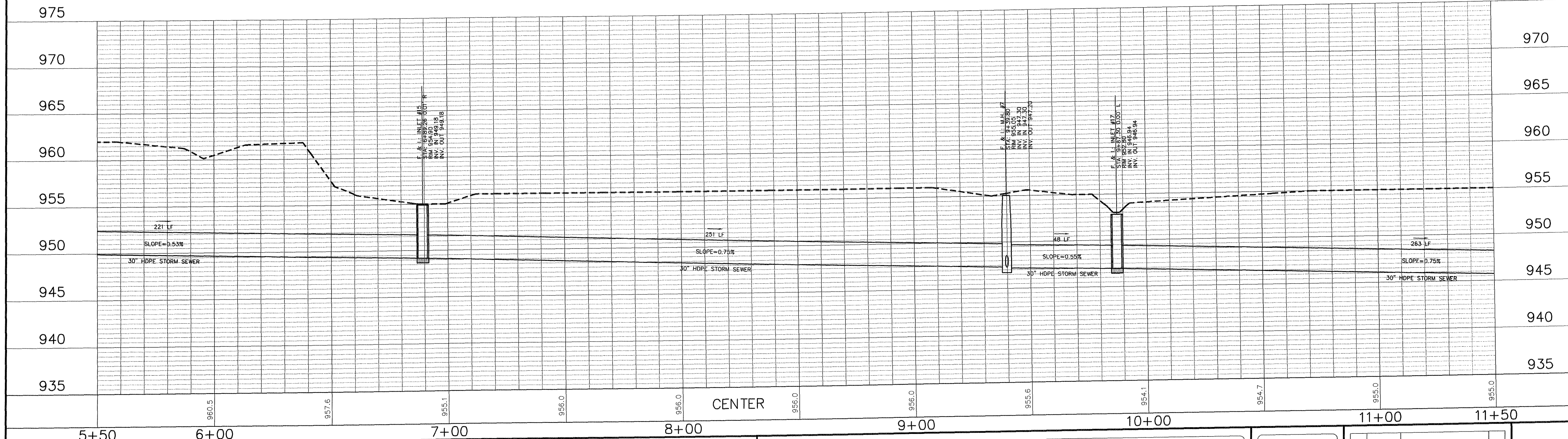
SHEET
C6.11 of C6.13

I.D. 1795

DWG. 06-201-D

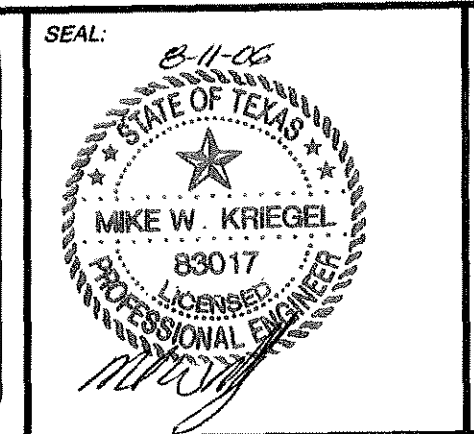


SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: **STORM SYSTEM I
PLAN & PROFILE**

DRAWN BY: FRB/GEJ	DATE: JUNE 2006	SCALE: AS SHOWN	FB-LB: *****	REF-L/B: *****	CLIENT: PLACE PROPERTIES - MILITARY
-------------------	-----------------	-----------------	--------------	----------------	-------------------------------------

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

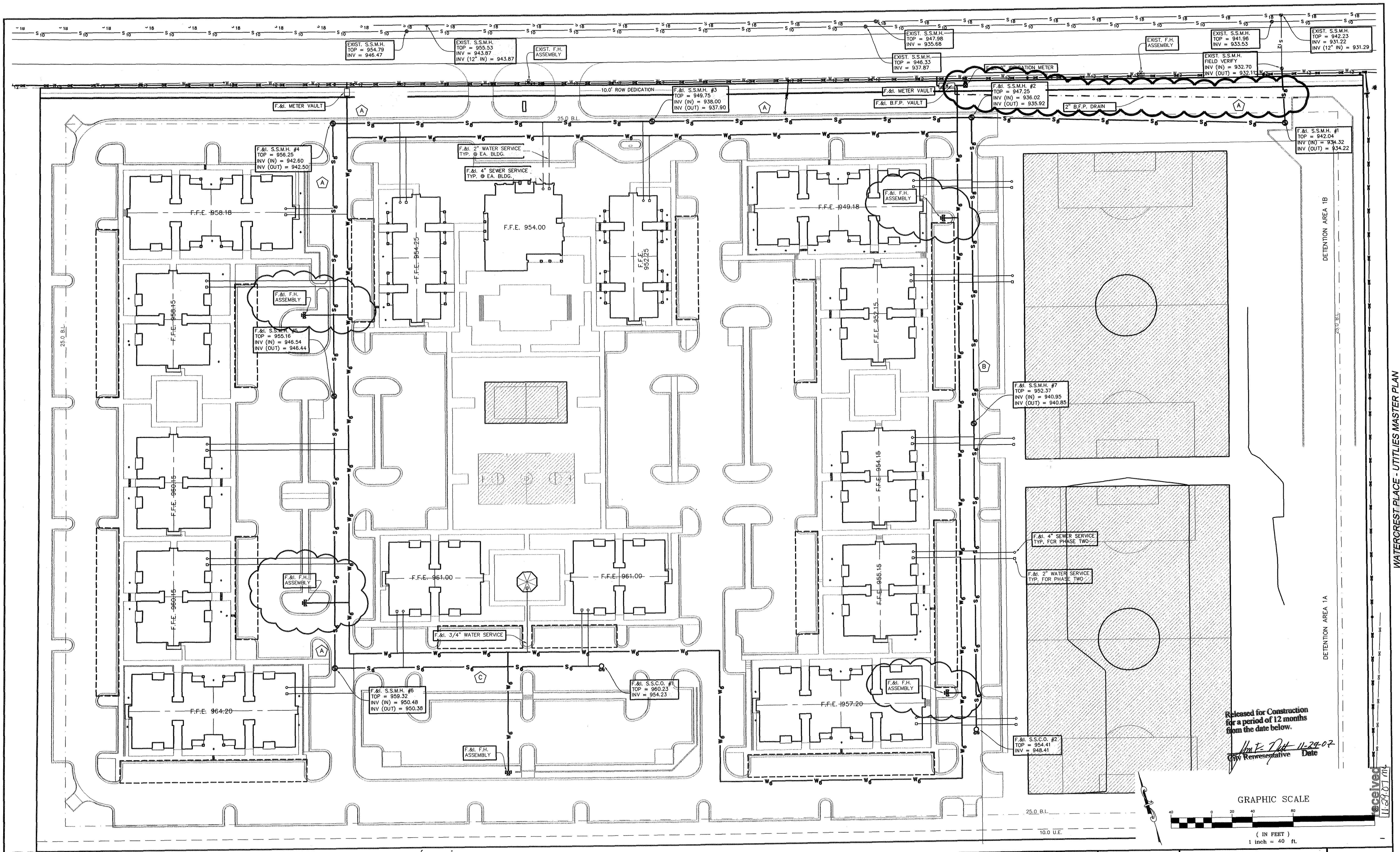
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REVISIONS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

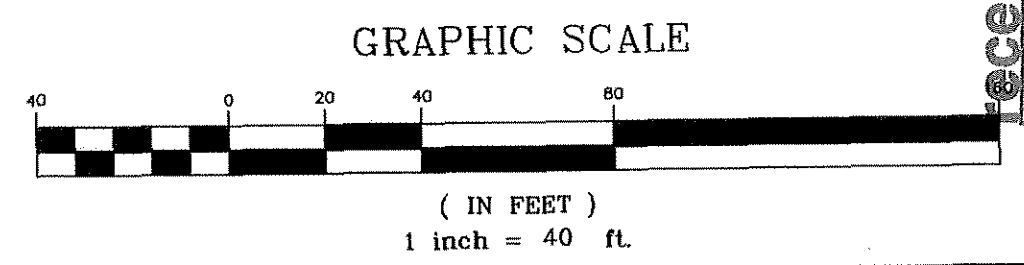
SHEET
C6.12 of C6.13

I.D. 1785

DWG. 06-201-D



Released for Construction
for a period of 12 months
from the date below.
John E. Dutt 11-29-07
City Representative Date



WATERCREST PLACE - UTILITIES MASTER PLAN

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

SEAL: 11-28-07

SHEET TITLE: **UTILITIES MASTER PLAN**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS
MONUMENT S.E.
CORNER OF S.H. 201
& WATERCREST RD.
ELEV. 974.36

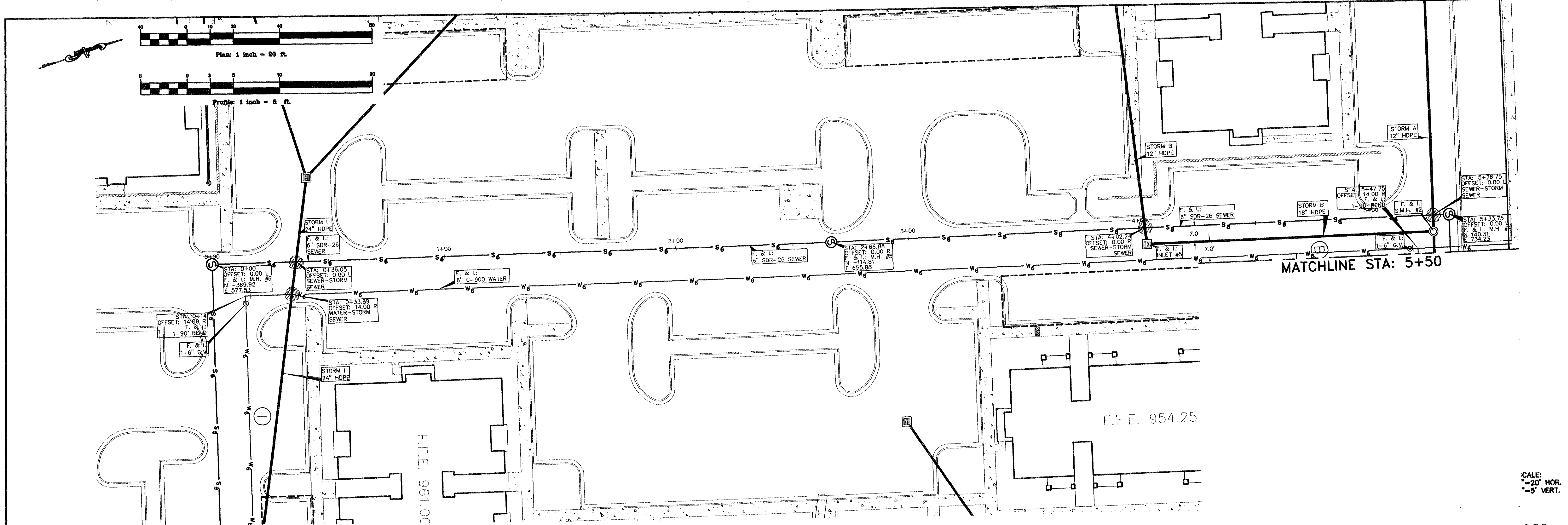
No.	DATE	REVISIONS	BY
4	10/10/07	REVISED RETAINING WALL	SMK
3	09/26/06	CITY COMMENTS	GEJ
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET
C-7 OF C-15

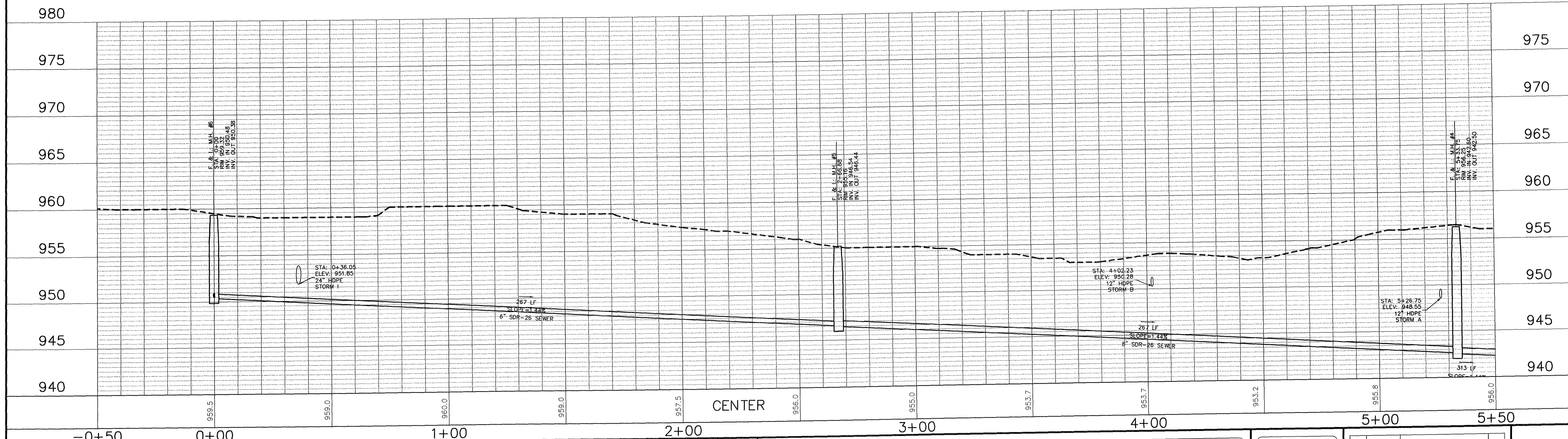
I.D. 1795

DWG. 06-201-D

received 11-29-07 ml

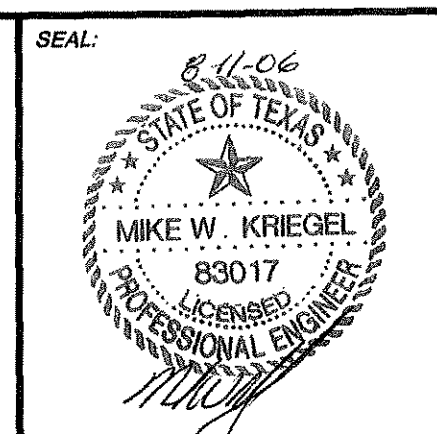


SCALE:
 " = 20' HOR.
 " = 5' VERT.



MITCHELL & ASSOCIATES, INC.
 ENGINEERING & SURVEYING

102 N. COLLEGE STREET
 KILLEEN, TEXAS 76541
 PHONE: (254) 634-5541
 FAX: (254) 634-2141



SHEET TITLE: **SEWER A PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
 KILLEEN, BELL COUNTY, TEXAS

BRASS MONUMENT
 SE CORNER OF
 STATE HIGHWAY 201
 AND WATERCREST
 ROAD.
 ELEV. 974.36

No.	DATE	REVISIONS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET
C7.1 of C7.6

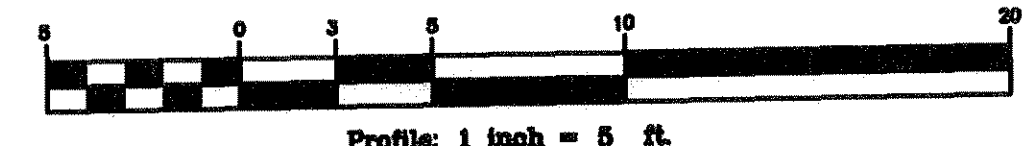
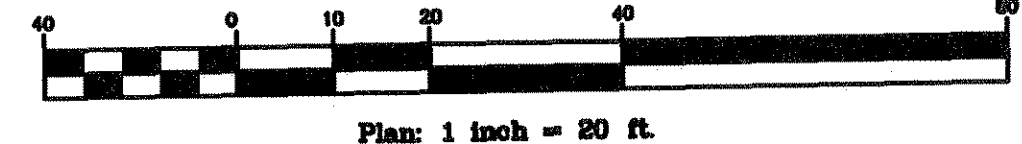
I.D. 1795

DWG. 06-201-D

(R.O.W. VARIES)

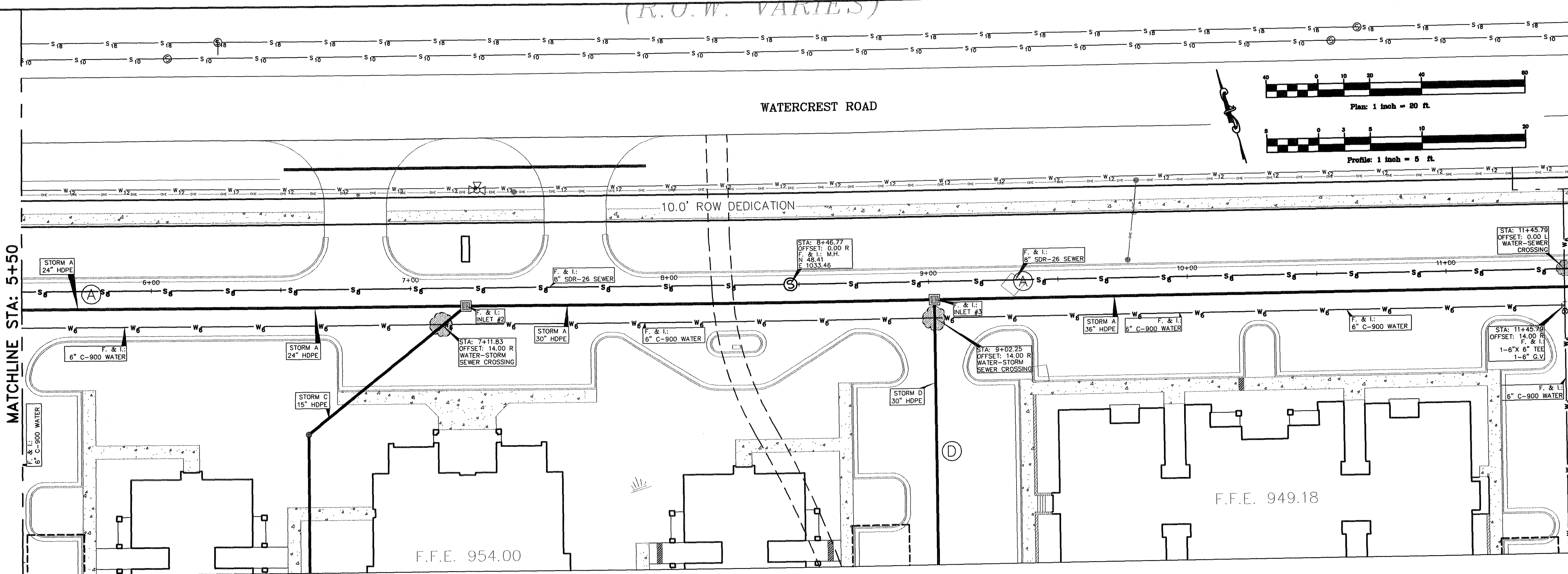
WATERCREST ROAD

10.0' ROW DEDICATION

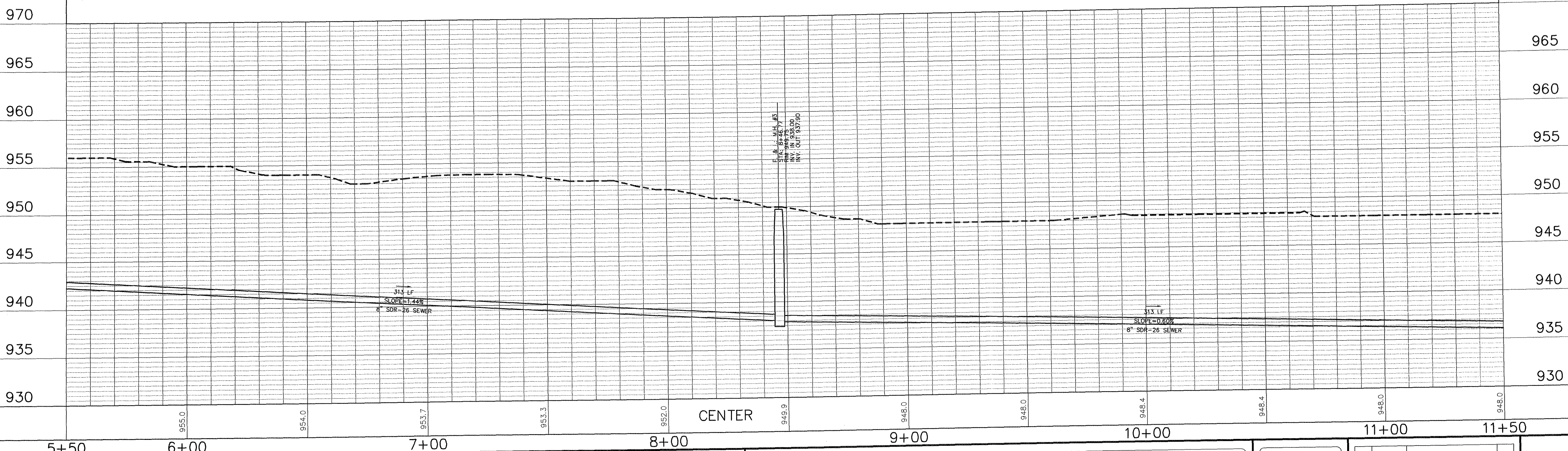


MATCHLINE STA: 5+50

MATCHLINE STA: 11+50

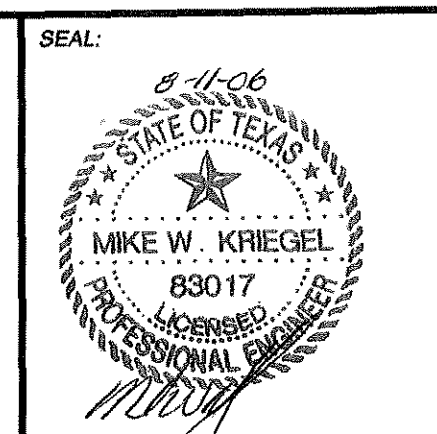


SCALE: 1"=20' HOR. 1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: **SEWER A PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

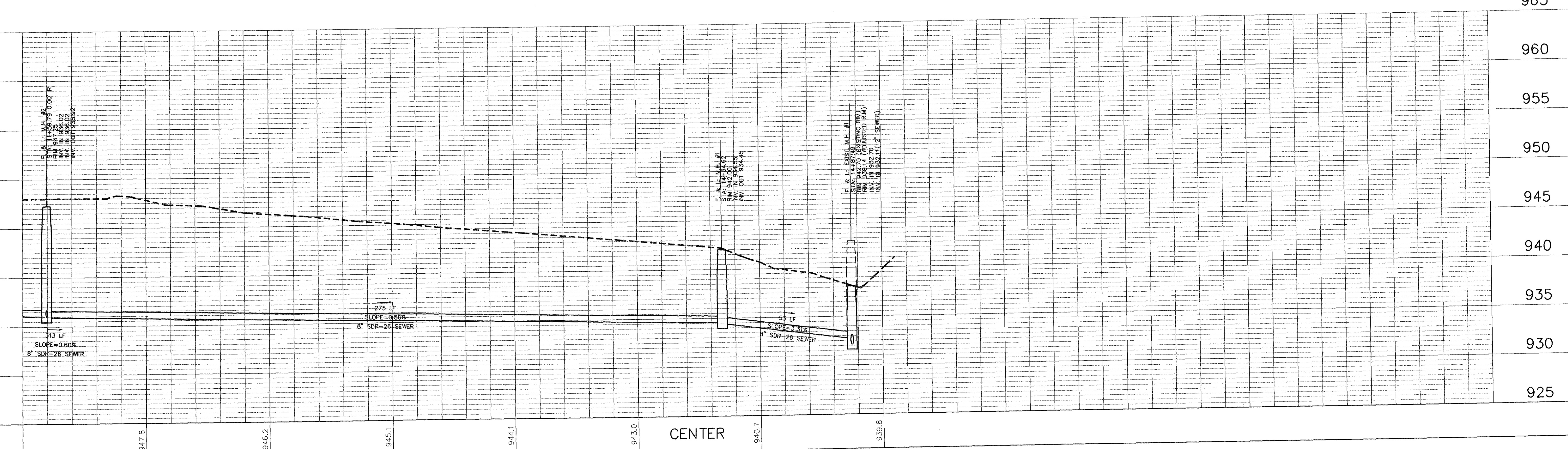
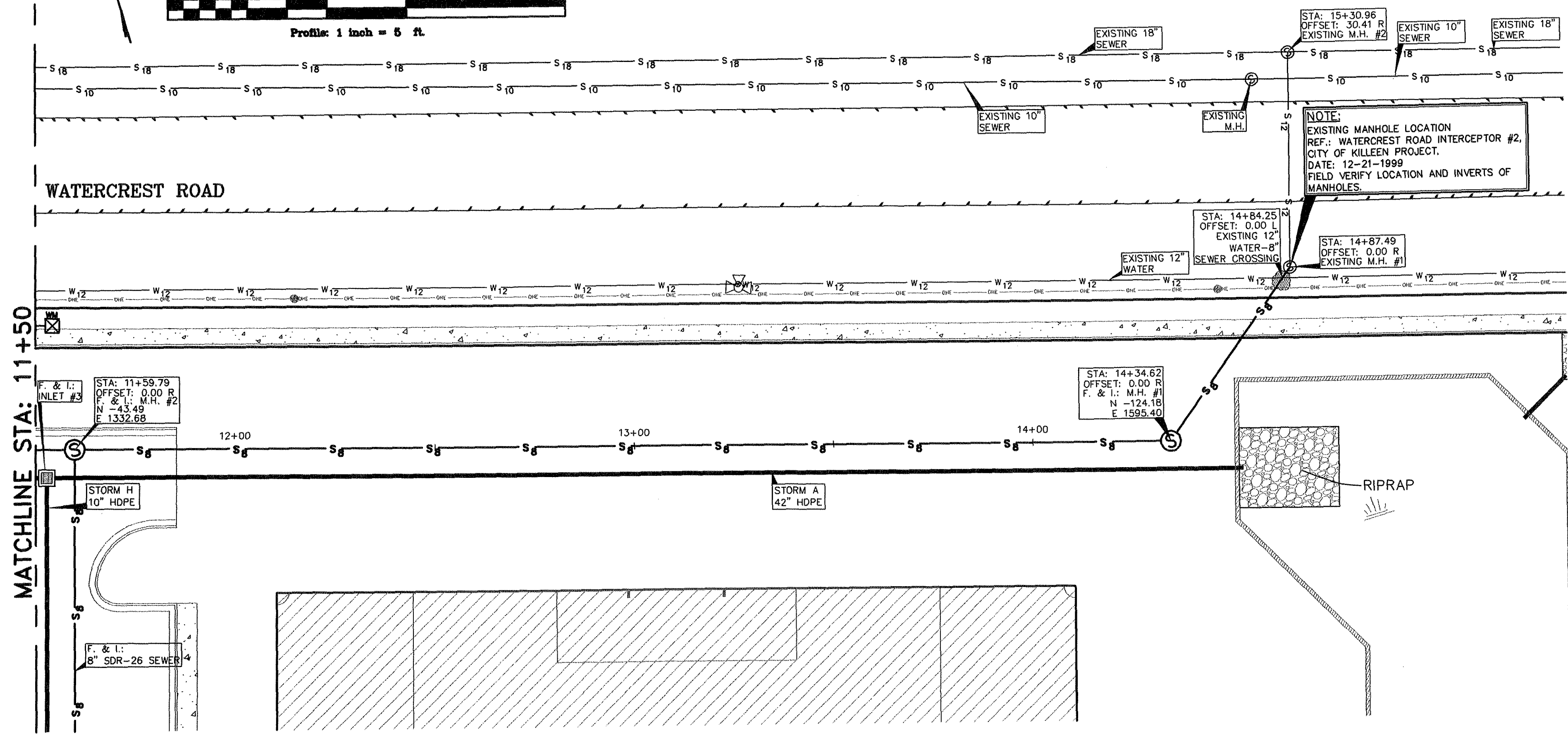
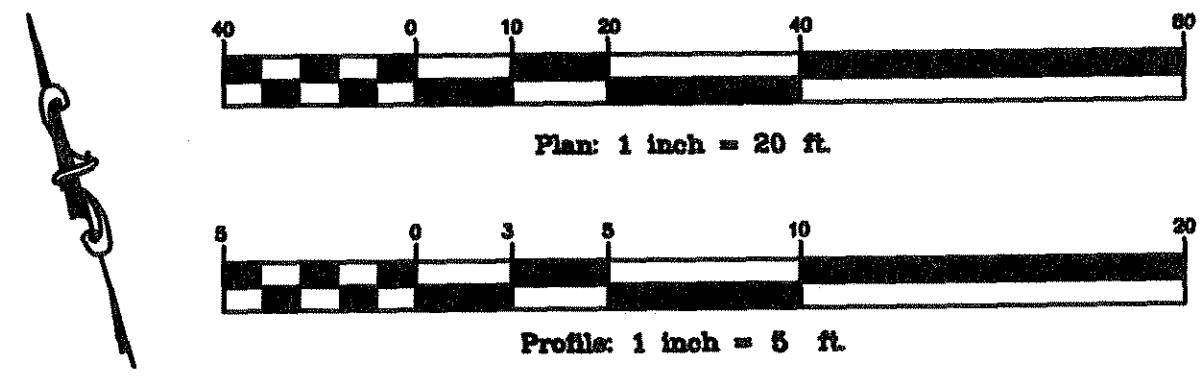
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REVISIONS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET C7.2 OF C7.6

I.D. 1795

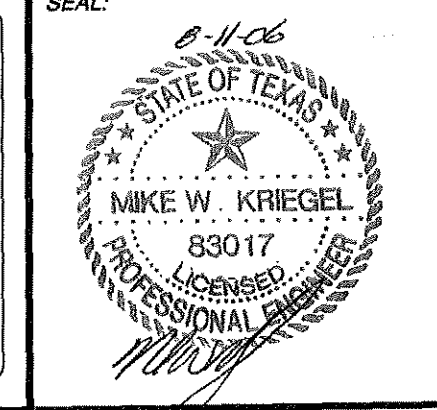
DWG. 06-201-D



11+50 12+00 13+00 14+00 15+00

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**SEWER A
PLAN & PROFILE**

DRAWN BY: FRB/GEJ DATE: JUNE 2006 SCALE: AS SHOWN FB-LB: ***** REF-L/B: ***** CLIENT: PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REVISIONS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

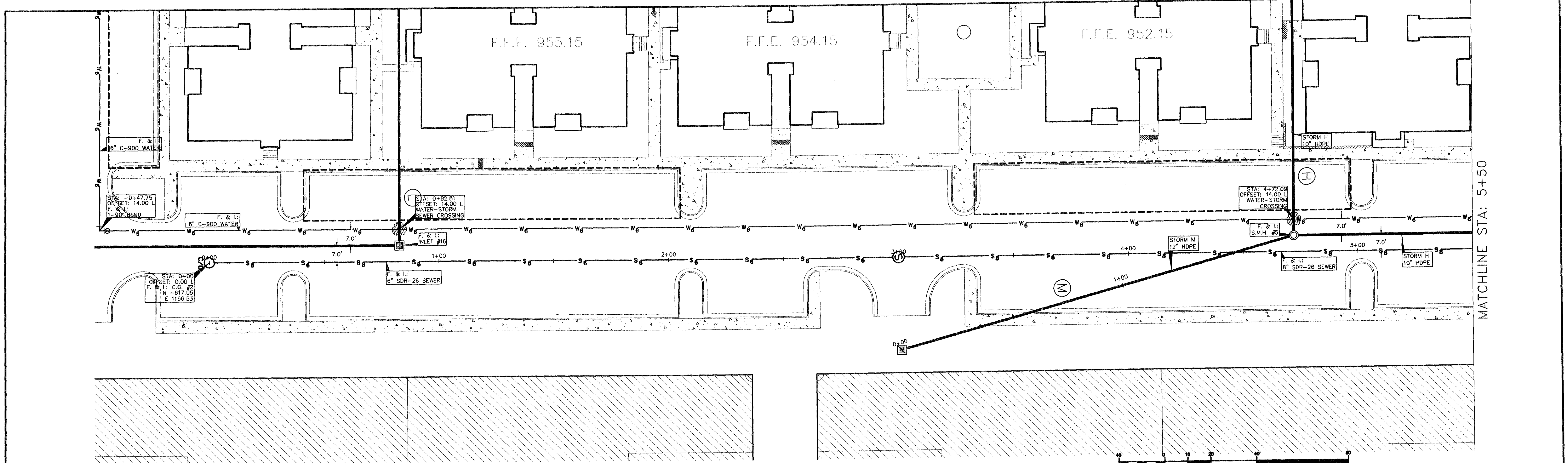
**SHEET
C7.3 OF C7.6**

I.D. 1795

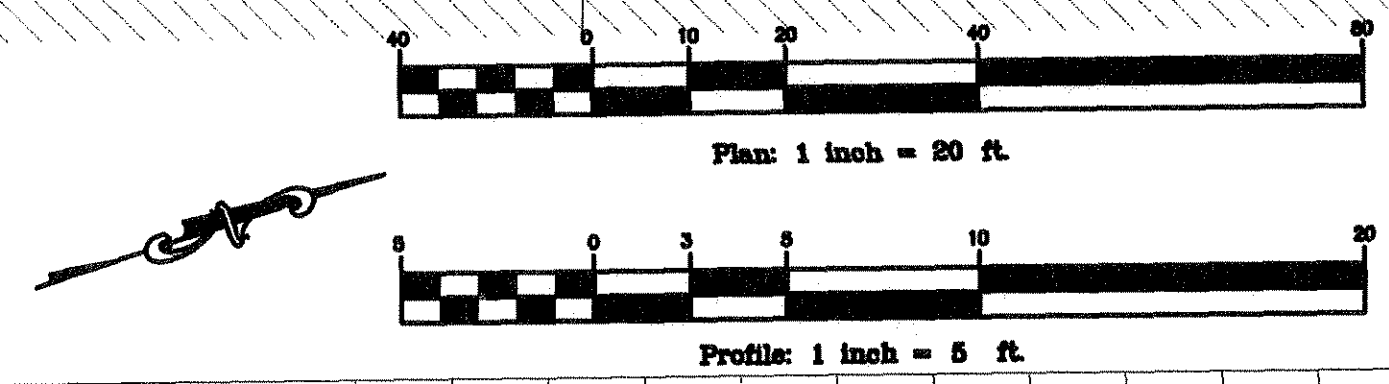
DWG. 06-201-D

SCALE:
1"=20' HOR.
1"=5' VERT.

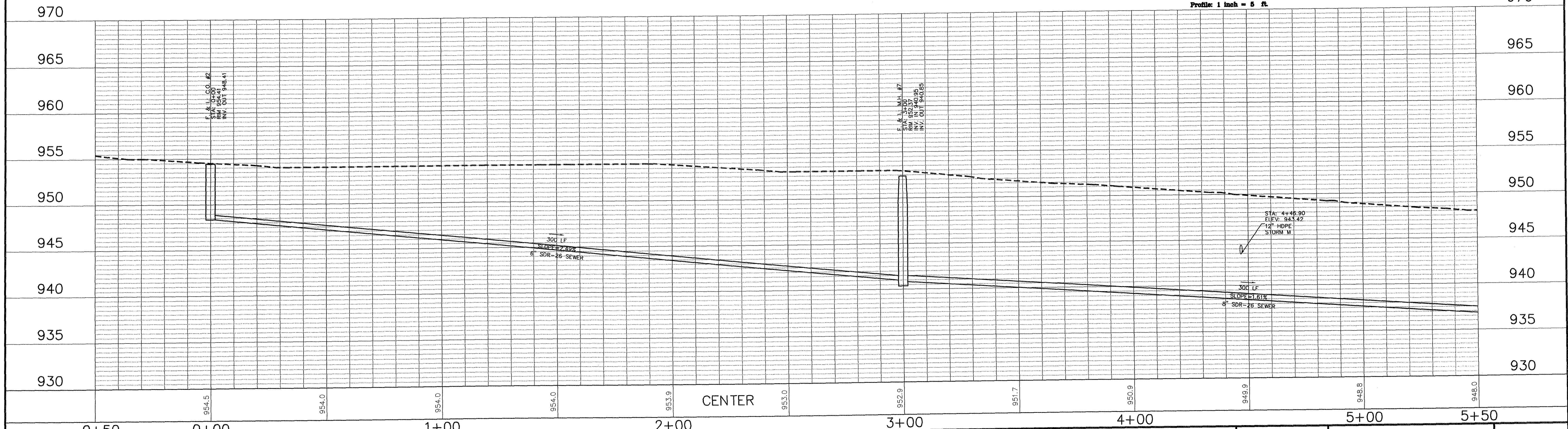
965
960
955
950
945
940
935
930
925



MATCHLINE STA: 5+50

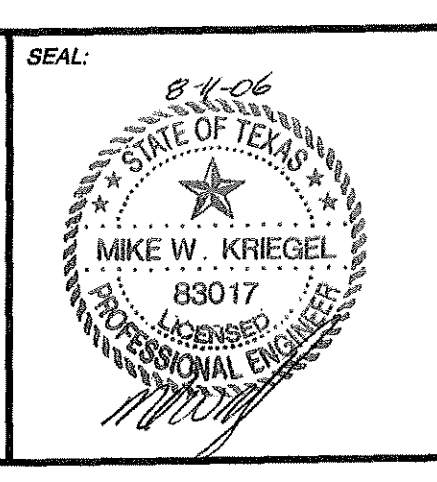


SCALE:
1"=20' HOR.
1"=5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

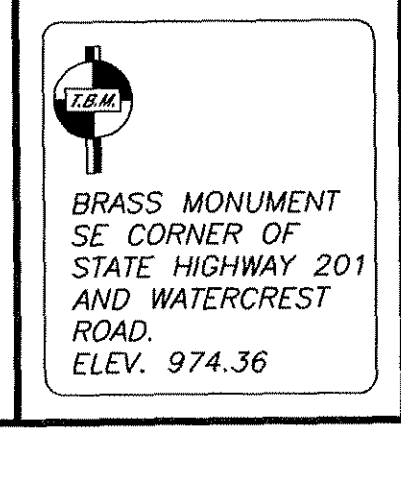


SHEET TITLE:
**SEWER B
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

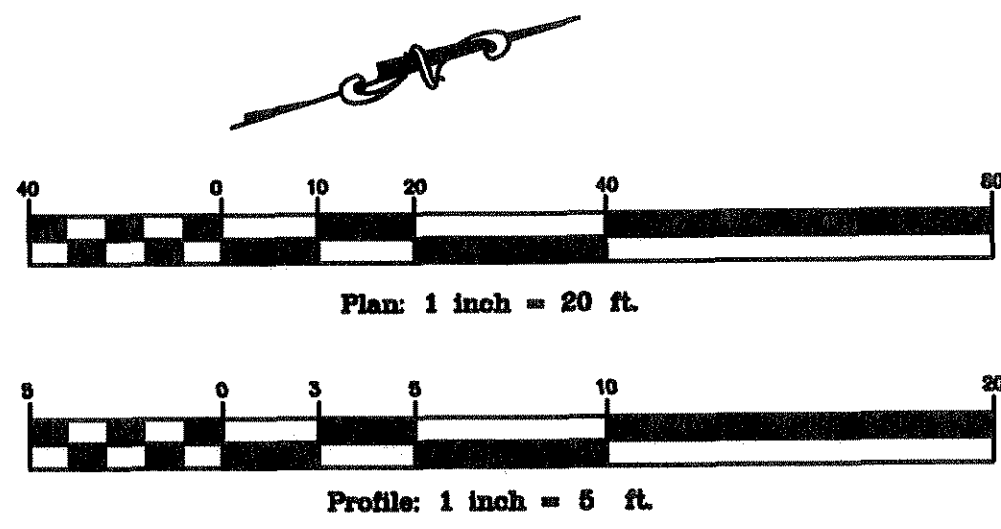
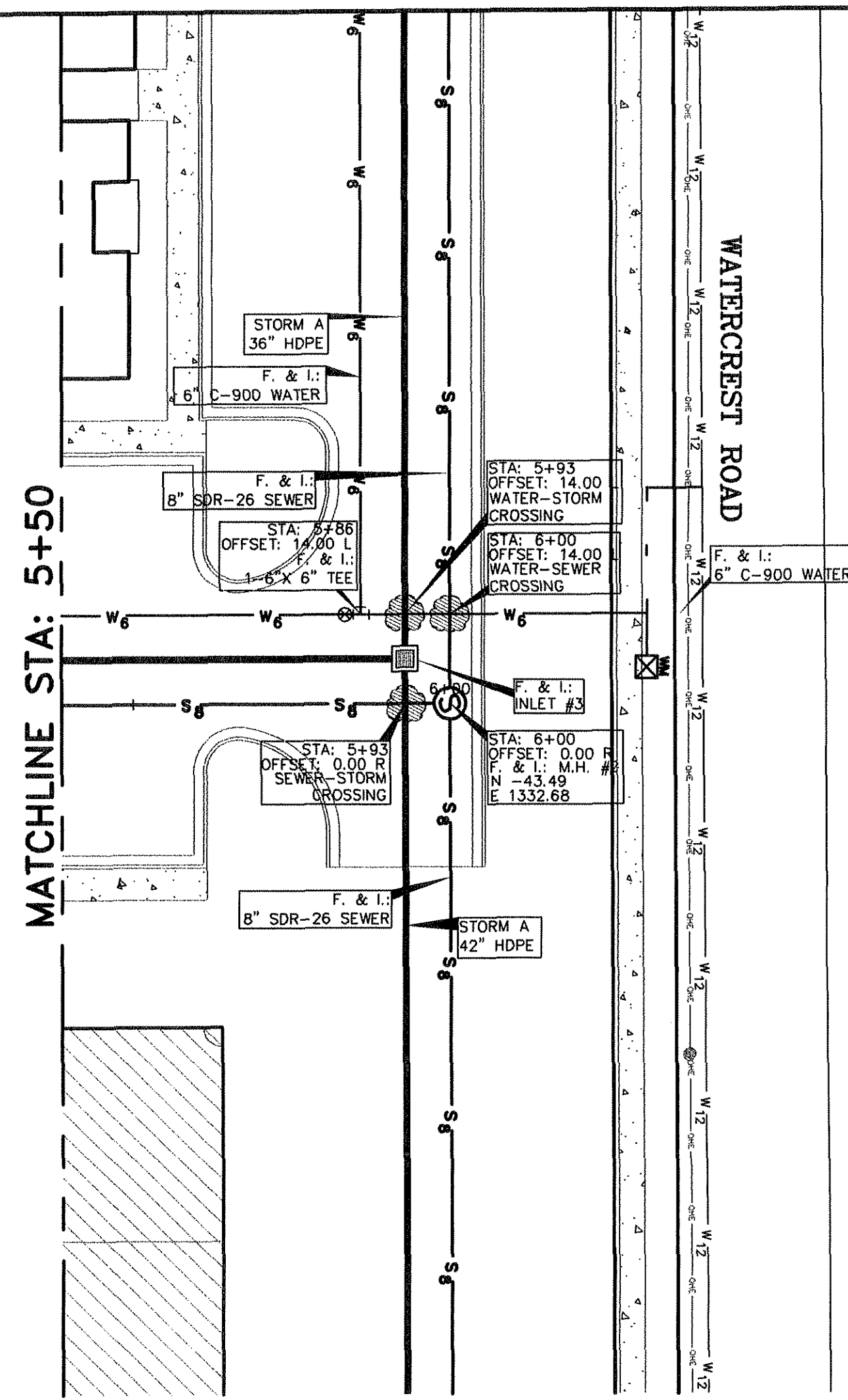


No.	DATE	REVISIONS	BY
2	8/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

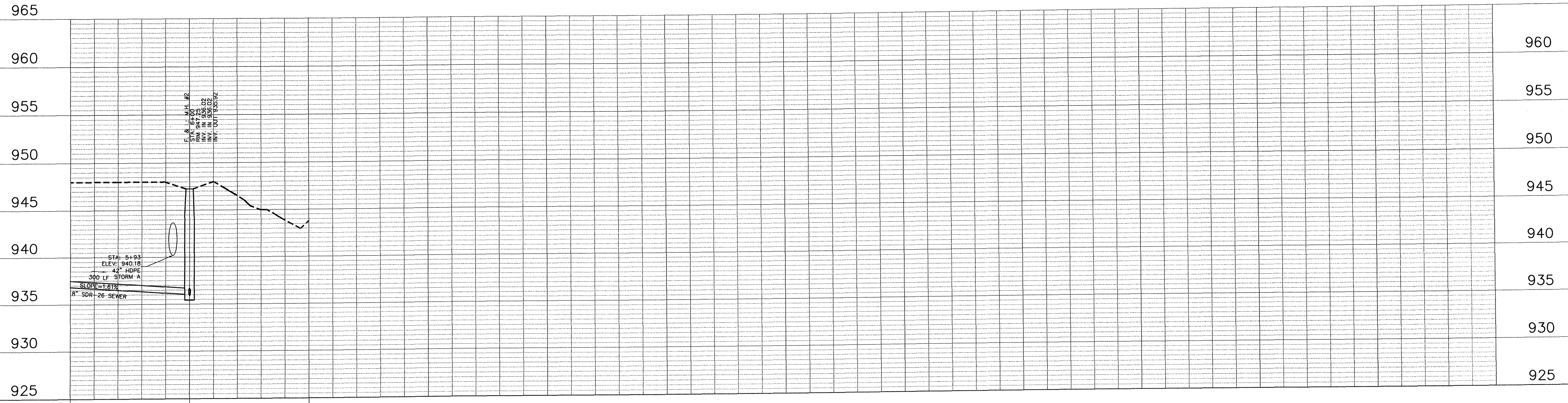
**SHEET
C7.4 OF C7.6**

I.D. 1795

DWG. 06-201-D



SCALE:
1"=20' HOR.
1"=5' VERT.



CENTER

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**SEWER B
PLAN & PROFILE**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
FRB/GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

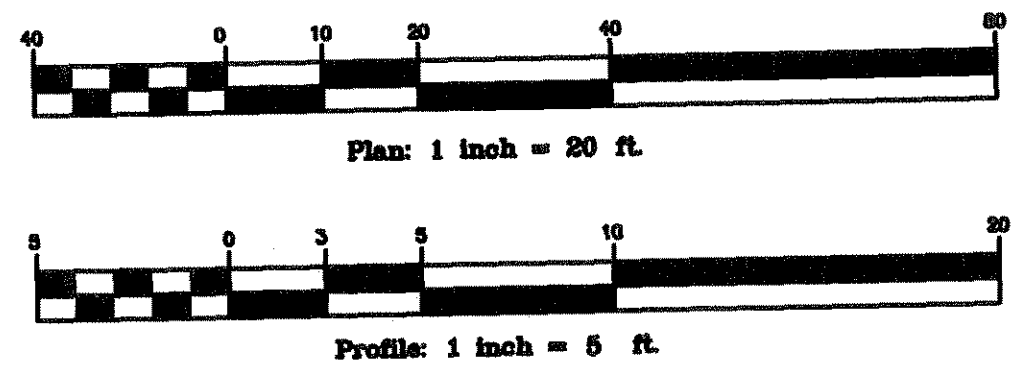
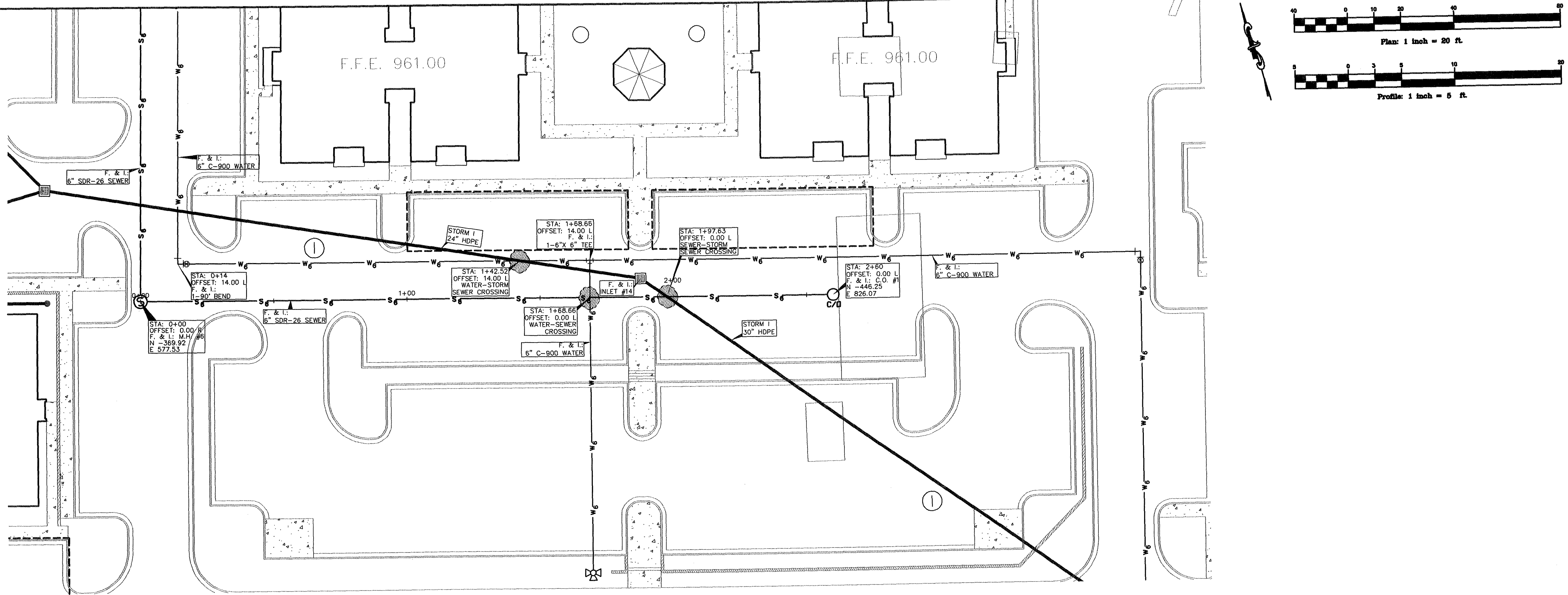
WaterCrest Place

KILLEEN, BELL COUNTY, TEXAS

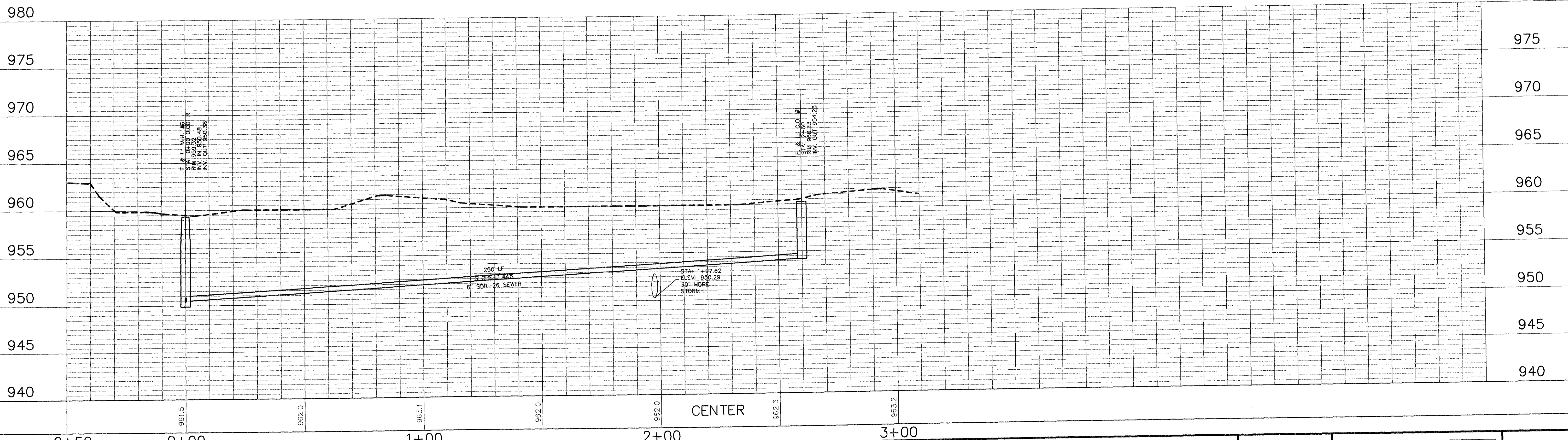
BRASS MONUMENT
SE CORNER OF
STATE HIGHWAY 201
AND WATERCREST
ROAD.
ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

**SHEET
C7.5 of C7.6**
I.D. 1795
DWG. 06-201-D

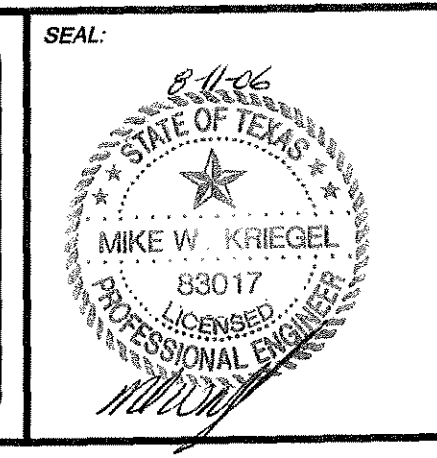


SCALE:
1" = 20' HOR.
1" = 5' VERT.



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

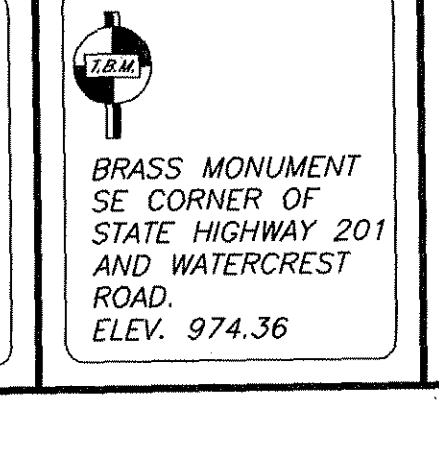
102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:
**SEWER C
PLAN & PROFILE**

DRAWN BY: FRB/GEJ DATE: JUNE 2006 SCALE: AS SHOWN FB-LB: ***** REF-L/B: ***** CLIENT: PLACE PROPERTIES - MILITARY

WaterCrest Place
KILLEEN, BELL COUNTY, TEXAS

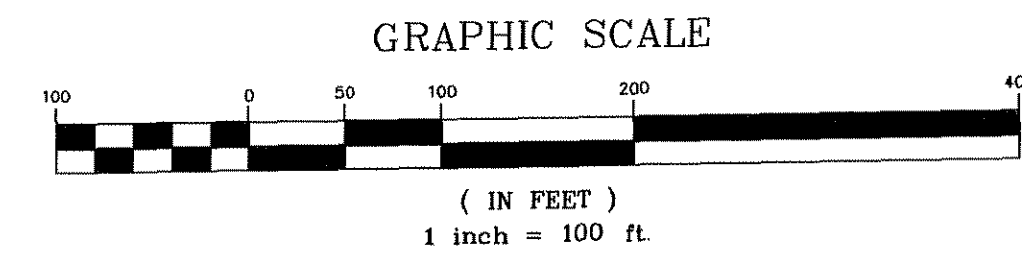
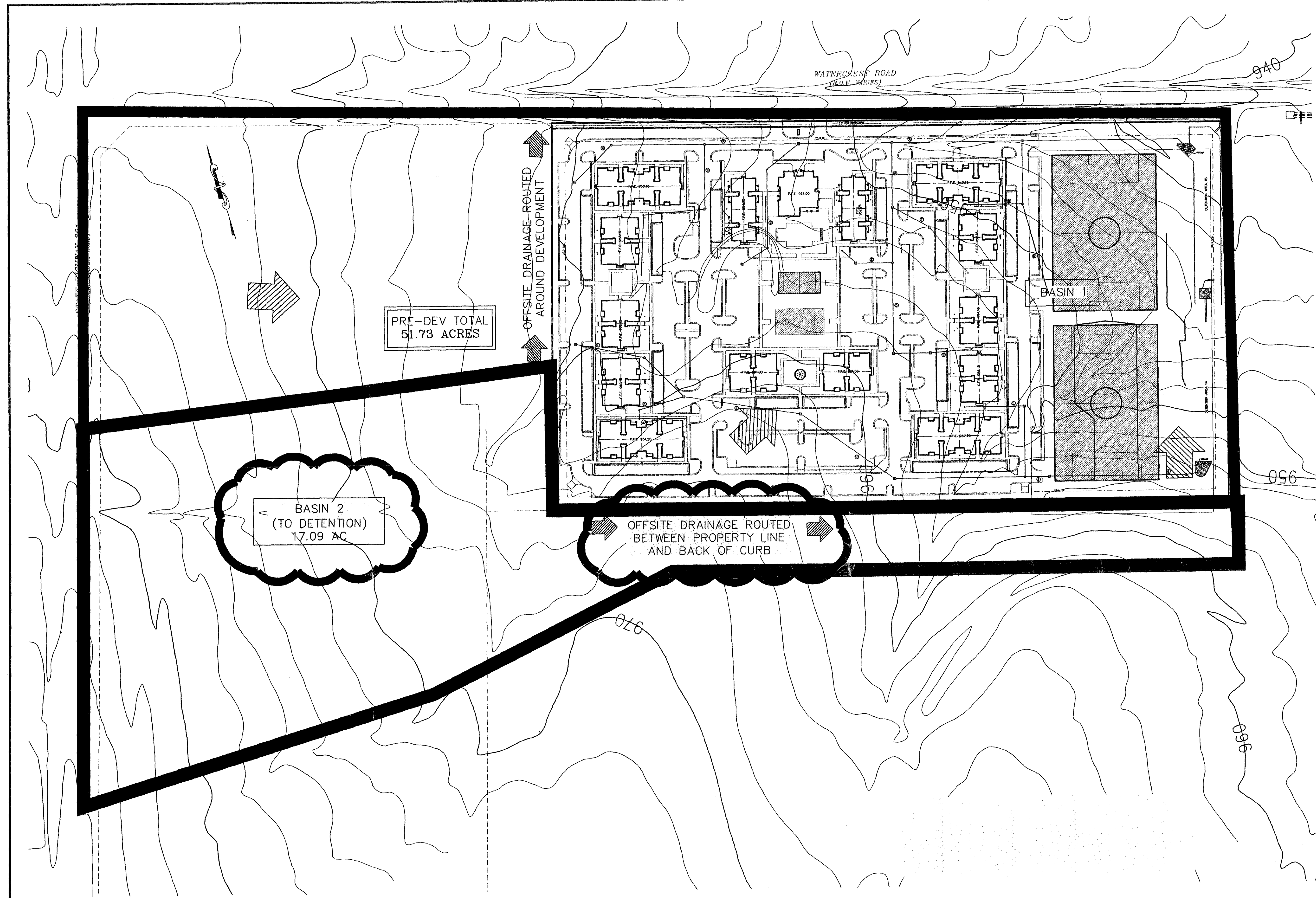


No.	DATE	REVISIONS	REMARKS	BY
2	8/10/06	CITY COMMENTS		GEJ
1	06/22/06	REVISED COMMUNITY BLDG.		GEJ

**SHEET
C7.6 OF C7.6**

I.D. 1795

DWG. 06-201-D



DRAINAGE CHANNEL
Worksheet for Triangular Channel

Project Description	
Project File	s:\civil (commercial)\2009\06-201 d (place properties)\drainage.fm2
Worksheet	DRAINAGE CHANNEL
Flow Element	Triangular Channel
Method	Manning's Formula
Solve For	Discharge
Input Data	
Manning's Coefficient	0.030
Channel Slope	0.002500 ft/ft
Depth	2.50 ft
Left Side Slope	3.000000 H : V
Right Side Slope	3.000000 H : V
Results	
Discharge	52.02 cfs
Flow Area	19.75 ft ²
Wetted Perimeter	19.81 ft
Top Width	15.00 ft
Critical Depth	1.89 ft
Critical Slope	0.014932 ft/ft
Velocity	2.77 ft/s
Velocity Head	0.12 ft
Specific Energy	2.62 ft
Froude Number	0.44
Flow is subcritical.	

11/28/07 12:37:50 PM HydroSoft Methods, Inc. 37 Brookside Road Waterbury, CT 06708 (203) 756-1995 FlowMaster v6.11 Page 1 of 1

BASIN 2
(TO DETENTION)
17.09 AC

OFFSITE DRAINAGE ROUTED
BETWEEN PROPERTY LINE
AND BACK OF CURB

HYDROLOGY NOTES:
DRAINAGE BASIN 2, BEING 17.09 AC, PRODUCES 40.67 CFS OF DISCHARGE DURING THE 25-YEAR STORM EVENT. A DRAINAGE CHANNEL HAS BEEN DESIGNED BETWEEN THE SOUTH PROPERTY LINE AND THE BACK OF CURB TO ROUTE THIS FLOW TO THE DETENTION AREA. THE DRAINAGE CHANNEL SHOULD MAINTAIN A DEPTH OF 2.50' TO ALLOW FOR A FULL FLOW CAPACITY OF THE CHANNEL TO BE 52.02 CFS.

Released for Construction
for a period of 12 months
from the date below.

John P. Nest 11-29-07
City Representative Date

CORRECTED PLANS
received
11/29/07

IF YOU DIG TEXAS...
CALL US FIRST!
1-800-344-8377
UTILITIES PROTECTION CENTER
IT'S THE LAW

WATERCREST PLACE - HYDROLOGY PLAN

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

SEAL: 11-28-07

SHEET TITLE: **HYDROLOGY PLAN**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

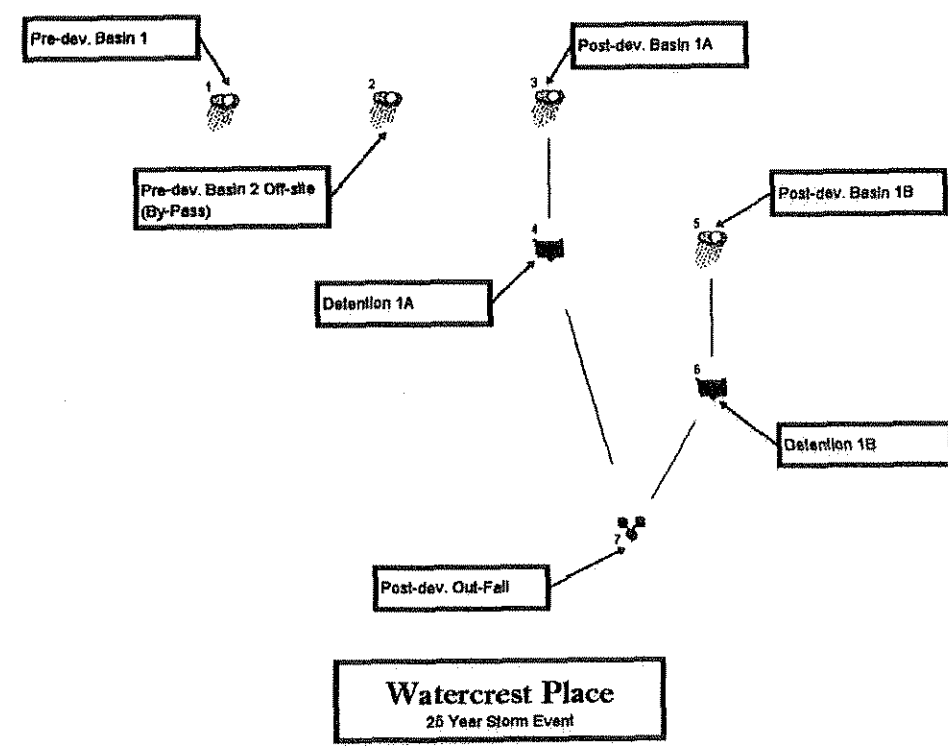
T.B.M. - BRASS
MONUMENT S.E.
CORNER OF S.H. 201
& WATERCREST RD.
ELEV. 974.36

No.	DATE	REVISIONS	BY
3	11/28/07	DRAINAGE CHANNEL DESIGN	JES
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ
		REMARKS	BY

SHEET
C-8 of C-15

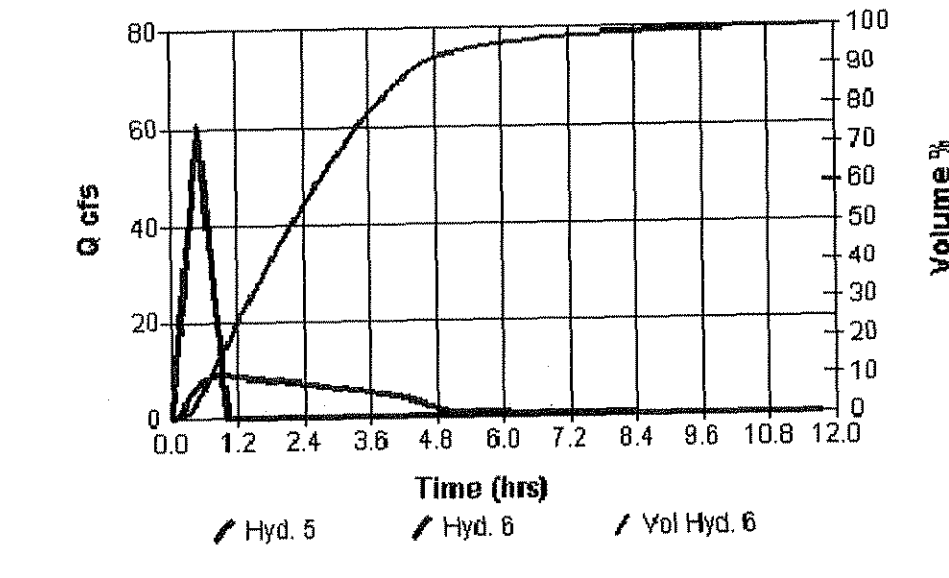
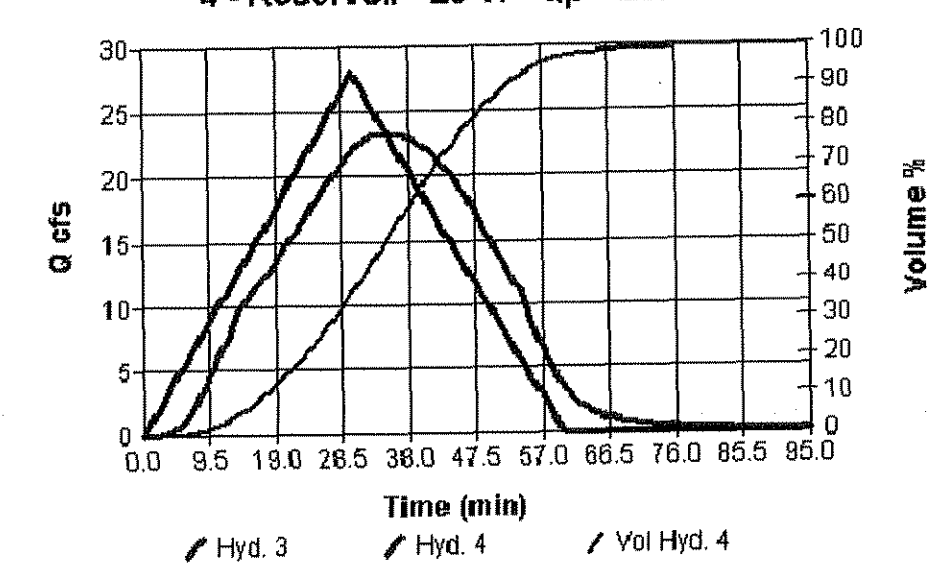
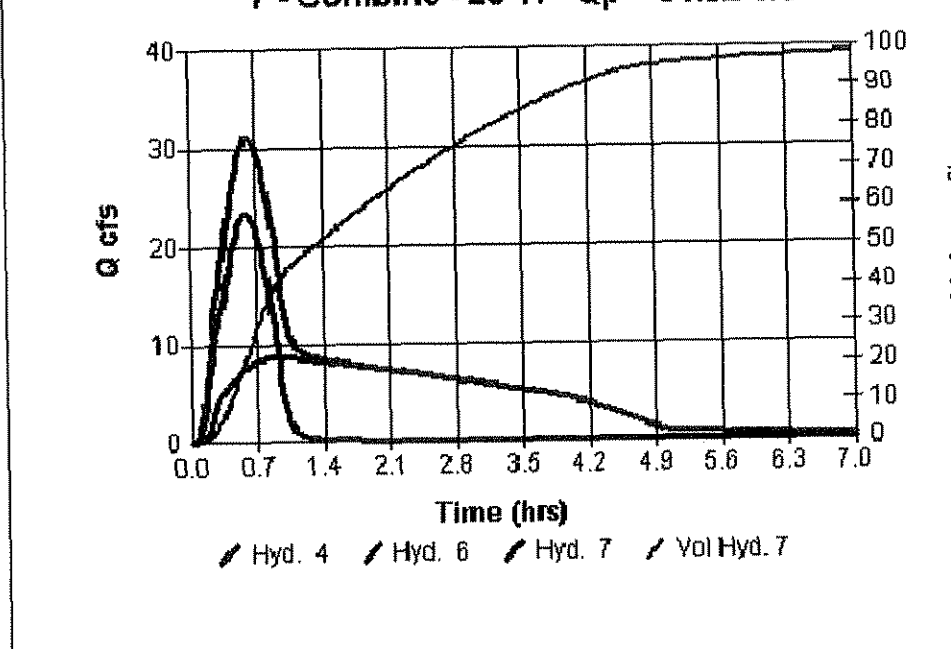
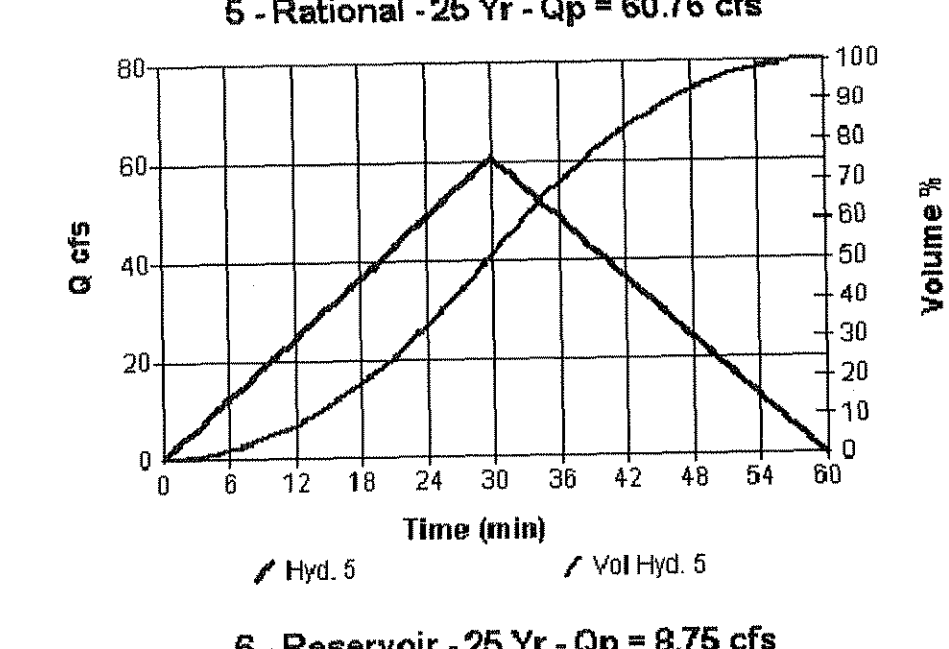
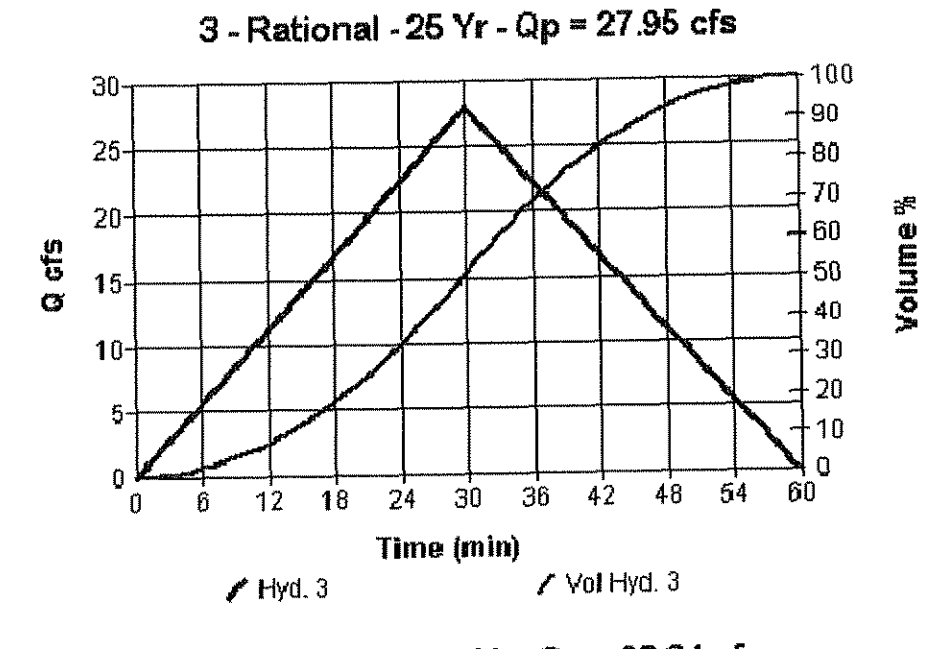
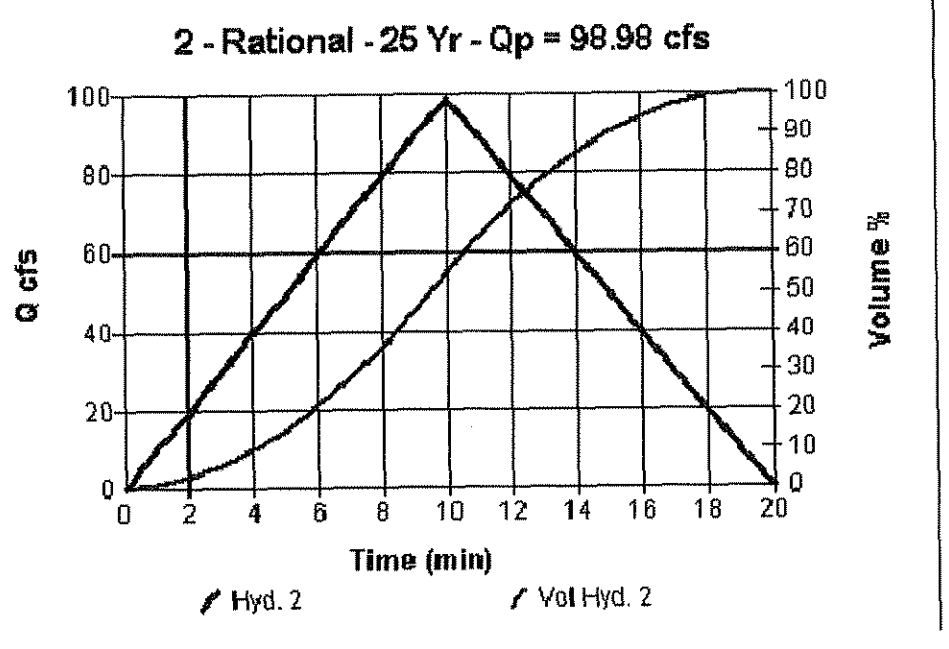
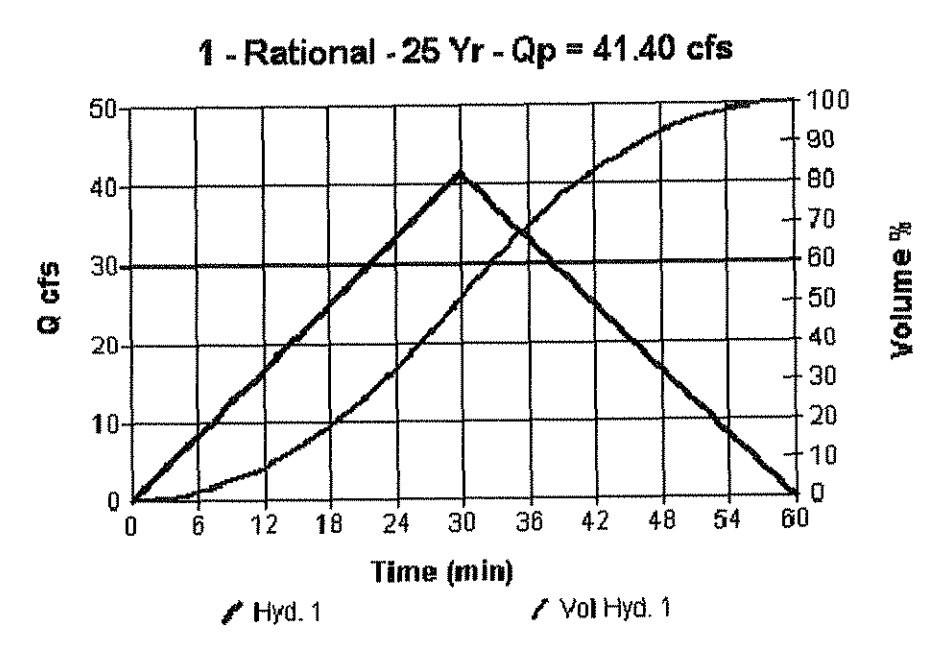
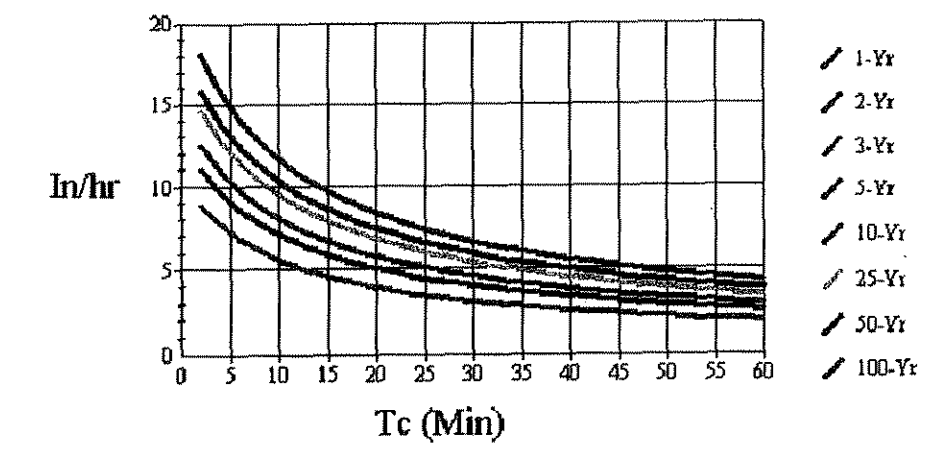
I.D. 1795

DWG. 06-201-D



Watercrest Place
25 Year Storm Event

I-D-F Curve



Hydrograph Return Period Recap

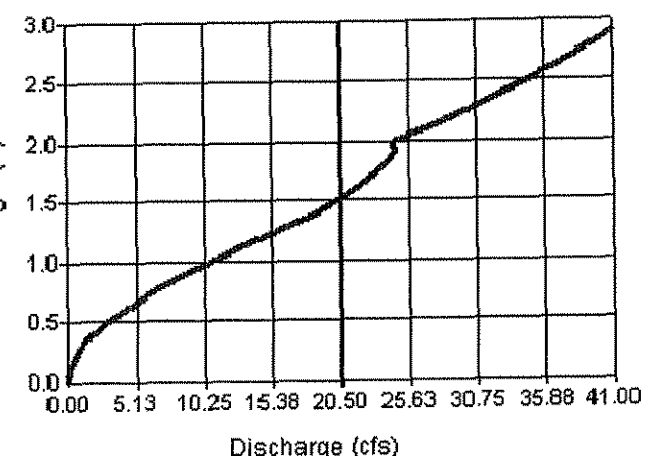
Hydrograph No.	Hydrograph Type	Return Period (yr)	Peak Discharge (cfs)	Peak Time (min)	Volume (cuft)	Hydrograph Description
1	Rational	25	41.40	30	74,015	Pre-dev. Outfall
2	Rational	25	98.98	10	99,287	Pre-dev. Outfall (City/Plant)
3	Rational	25	27.95	30	53,311	Post-dev. Basin 1A
4	Reservoir	25	23.34	27.47	34,711	Detention 1A
5	Rational	25	60.76	30	109,250	Post-dev. Basin 1B
6	Reservoir	25	8.75	17.41	16,391	Detention 1B
7	Combine	25	31.02	30	158,664	Post-dev. Outfall

Hydrograph Summary Report

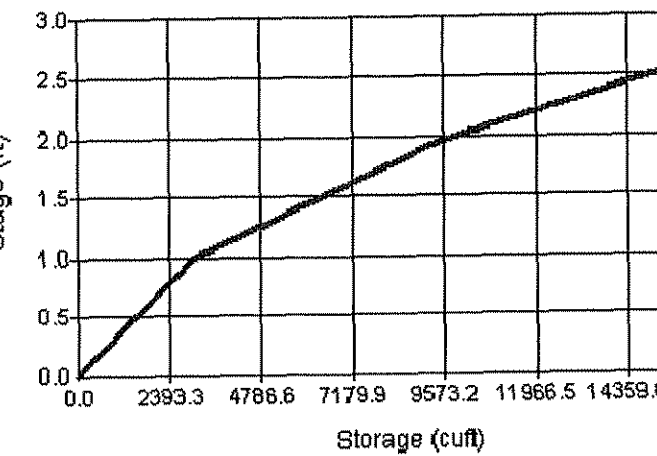
Hydrograph No.	Hydrograph Type	Return Period (yr)	Peak Discharge (cfs)	Peak Time (min)	Volume (cuft)	Hydrograph Description
1	Rational	25	41.40	30	74,015	Pre-dev. Outfall
2	Rational	25	98.98	10	99,287	Pre-dev. Outfall (City/Plant)
3	Rational	25	27.95	30	53,311	Post-dev. Basin 1A
4	Reservoir	25	23.34	27.47	34,711	Detention 1A
5	Rational	25	60.76	30	109,250	Post-dev. Basin 1B
6	Reservoir	25	8.75	17.41	16,391	Detention 1B
7	Combine	25	31.02	30	158,664	Post-dev. Outfall

Proj. file: Watercrest Place.gpw Run date: 08-10-2008
 Proj. file: Watercrest Place.gpw Return Period: 25 yr Run date: 08-10-2008

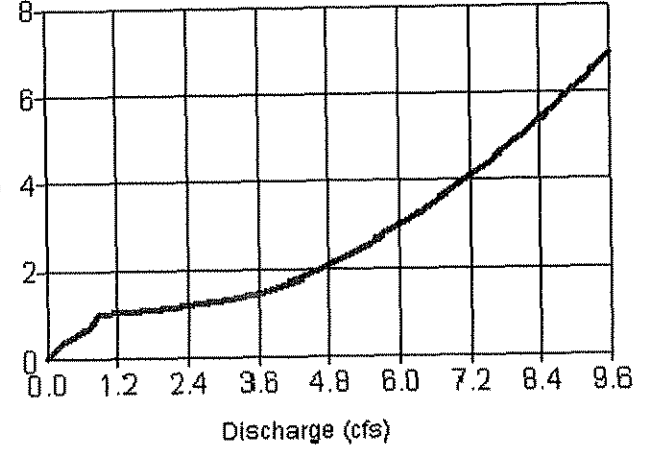
Detention 1A



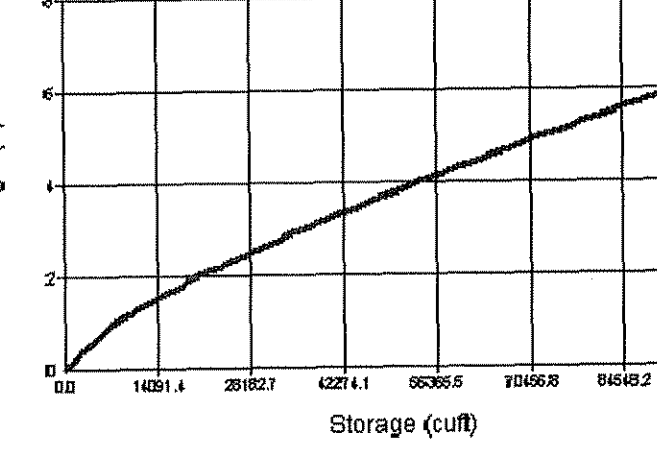
Detention 1A



Detention 1B



Detention 1B



Reservoir Report

Reservoir No. 3 - Detention 1A

Period Data
 Pond Storage is based on known contour areas. Average end area method used.

Stage (ft)	Storage (cuft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	0.000	1,400	0	0
1.00	94,000	4,370	3,070	94,000
2.00	165,000	7,280	6,580	165,000
3.00	265,000	11,000	11,000	265,000

Culvert / Orifice Structures

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]
Rise In	= 24.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
Rise In	= 24.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
No. Bars	= 2	0	0	0	0	0	0	0	0
Invert Elev.	= 920.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Length	= 100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Area	= 213	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Out. Coeff.	= 0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Slope	= No	No	No	No	No	No	No	No	No

Stage / Storage / Discharge Table

Stage (ft)	Storage (cuft)	Discharge (cfs)	Cu A	Cu B	Cu C	Cu D	We A	We B	We C	We D	Exfil	Total
0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	94,000	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
2.00	165,000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00
3.00	265,000	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00

Reservoir Report

Reservoir No. 4 - Detention 1B

Period Data
 Pond Storage is based on known contour areas. Average end area method used.

Stage (ft)	Storage (cuft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	0.000	4,200	0	0
1.00	80,000	17,000	17,000	80,000
2.00	160,000	32,000	32,000	160,000
3.00	240,000	47,000	47,000	240,000
4.00	320,000	62,000	62,000	320,000
5.00	400,000	77,000	77,000	400,000
6.00	480,000	92,000	92,000	480,000
7.00	560,000	107,000	107,000	560,000

Culvert / Orifice Structures

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]
Rise In	= 18.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
Rise In	= 18.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
No. Bars	= 1	0	0	0	0	0	0	0	0
Invert Elev.	= 920.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Length	= 75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Area	= 100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Out. Coeff.	= 0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Slope	= No	No	No	No	No	No	No	No	No

Stage / Storage / Discharge Table

Stage (ft)	Storage (cuft)	Discharge (cfs)	Cu A	Cu B	Cu C	Cu D	We A	We B	We C	We D	Exfil	Total
0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	80,000	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
2.00	160,000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00
3.00	240,000	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00
4.00	320,000	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00
5.00	400,000	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00
6.00	480,000	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00
7.00	560,000	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.00

MITCHELL & ASSOCIATES, INC.
 ENGINEERING & SURVEYING

102 N. COLLEGE STREET
 KILLEEN, TEXAS 76541
 PHONE: (254) 634-5541
 FAX: (254) 634-2141



SHEET TITLE: **HYDROLOGY PLAN**

DRAWN BY: GEJ DATE: JUNE 2006 SCALE: AS SHOWN FB-LB: ***** REF-L/B: ***** CLIENT: PLACE PROPERTIES - MILITARY

WaterCrest Place
 Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
 KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS
 MONUMENT S.E.
 CORNER OF S.H. 201
 & WATERCREST RD.
 ELEV. 974.36

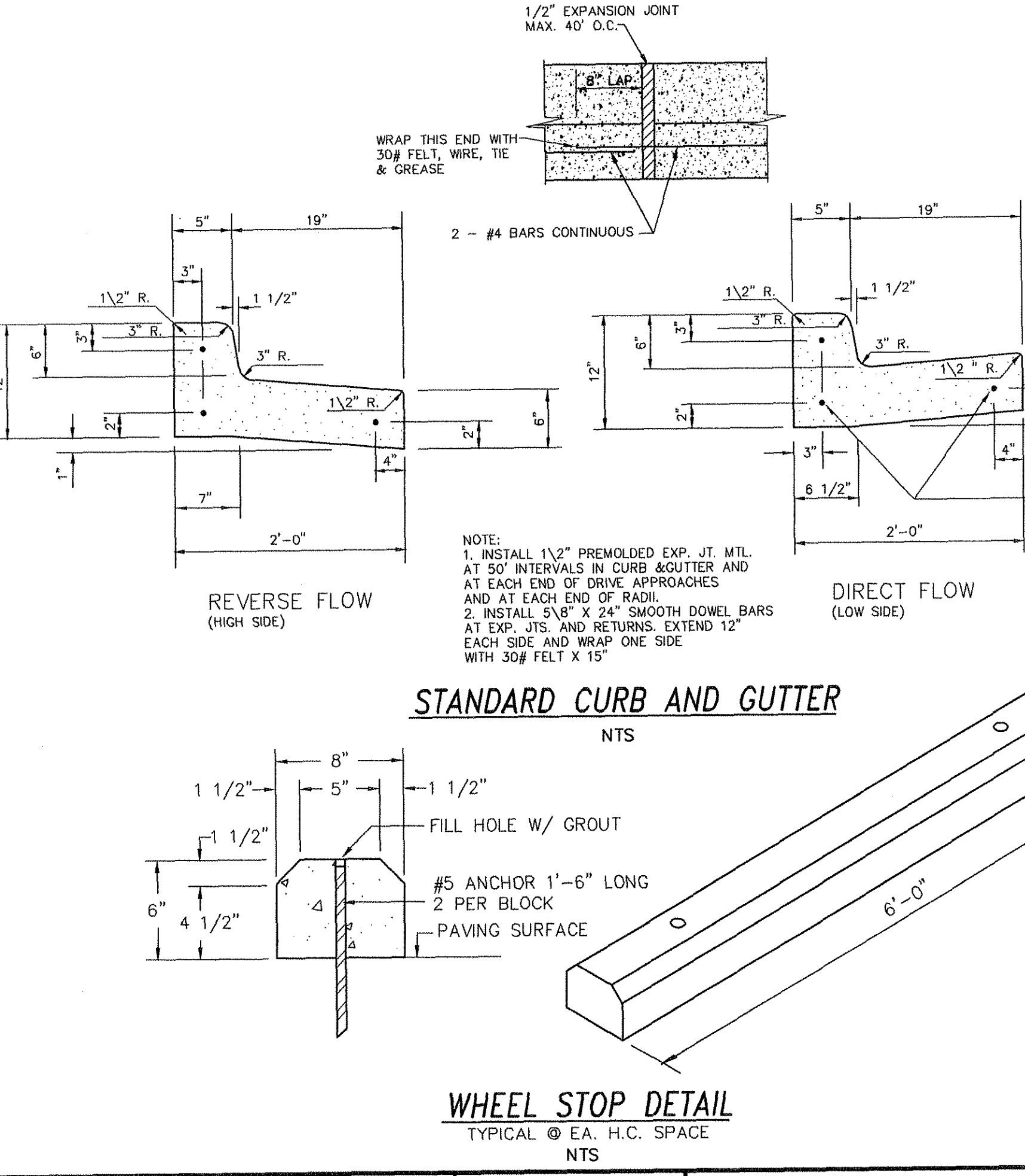
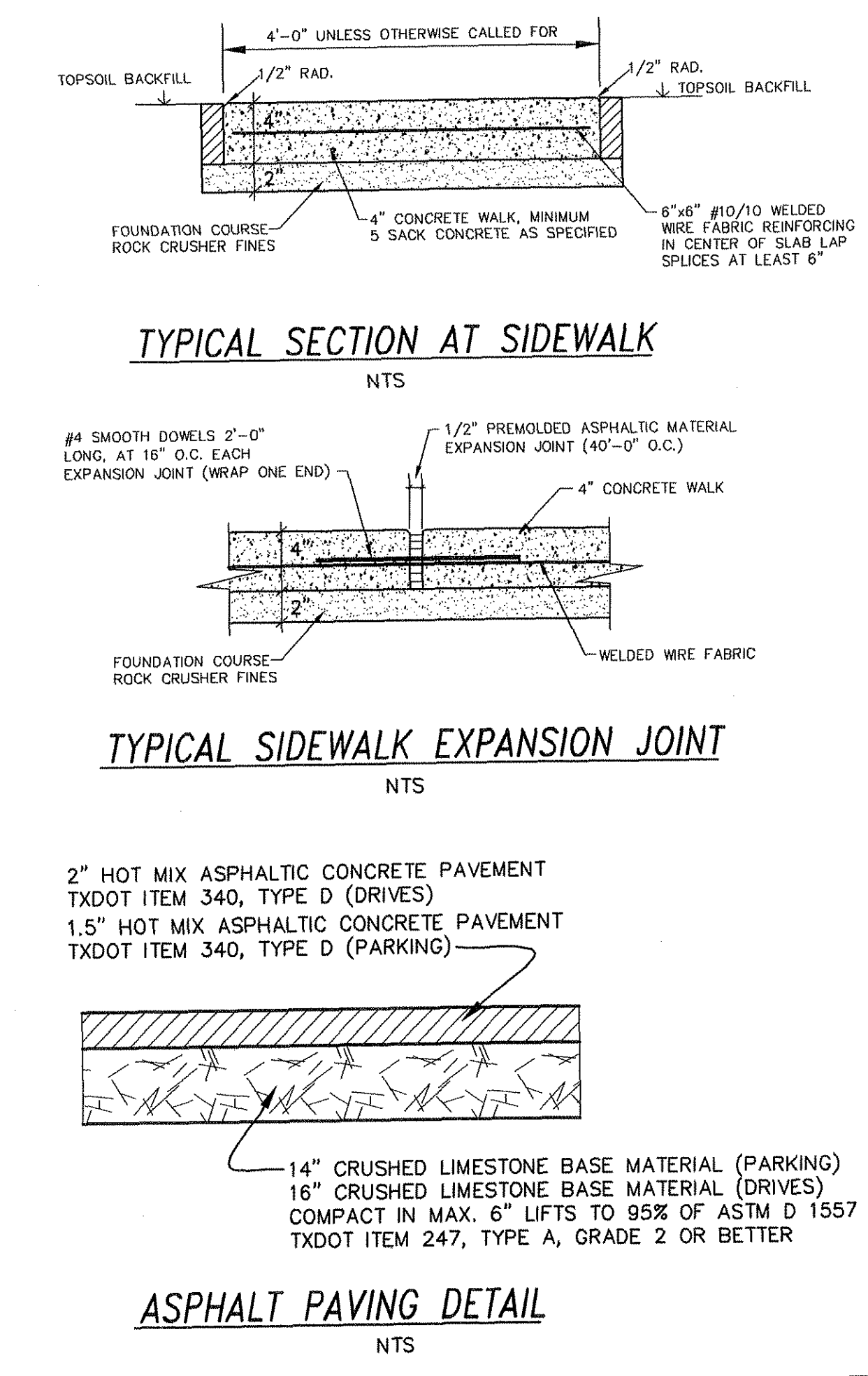
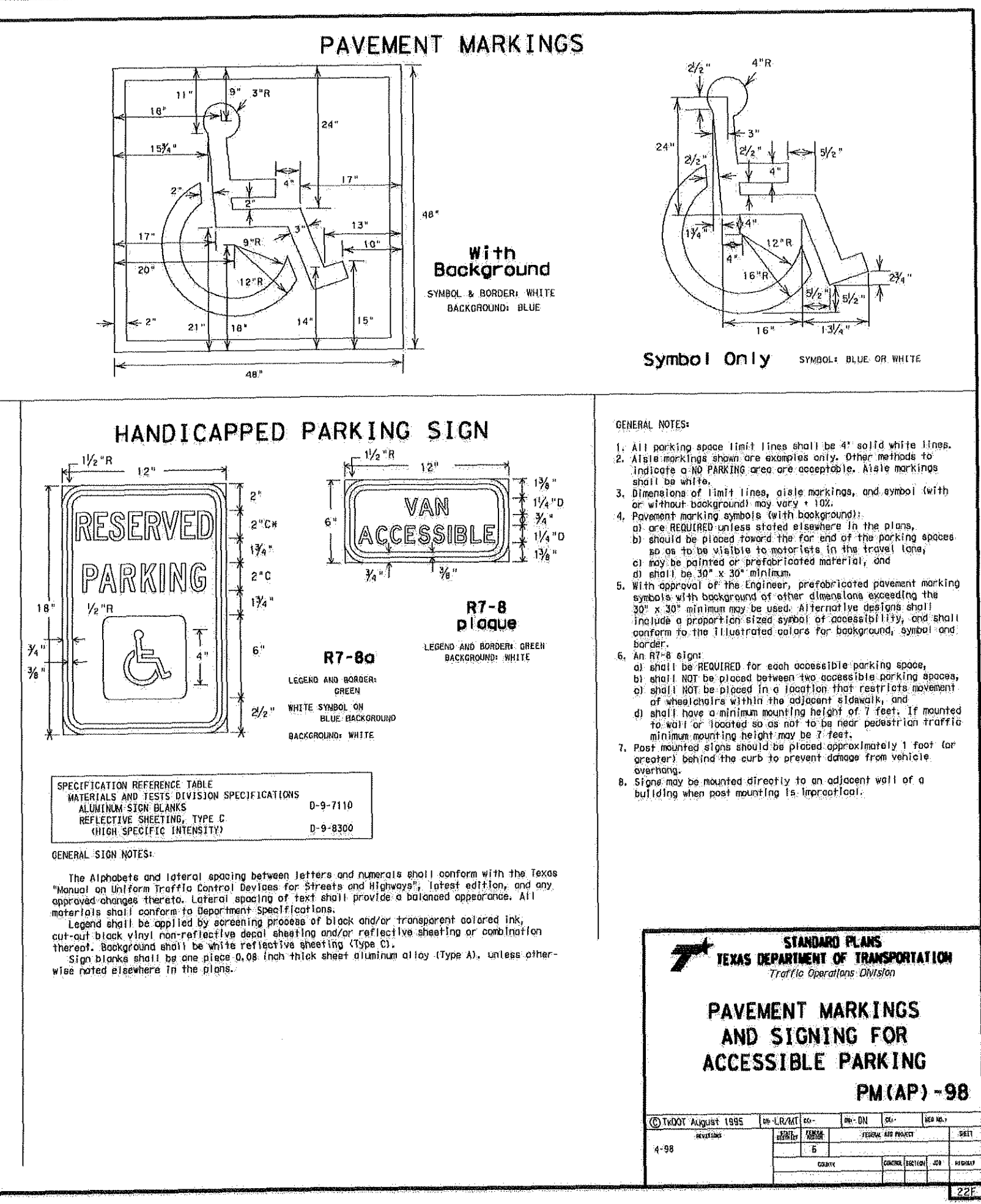
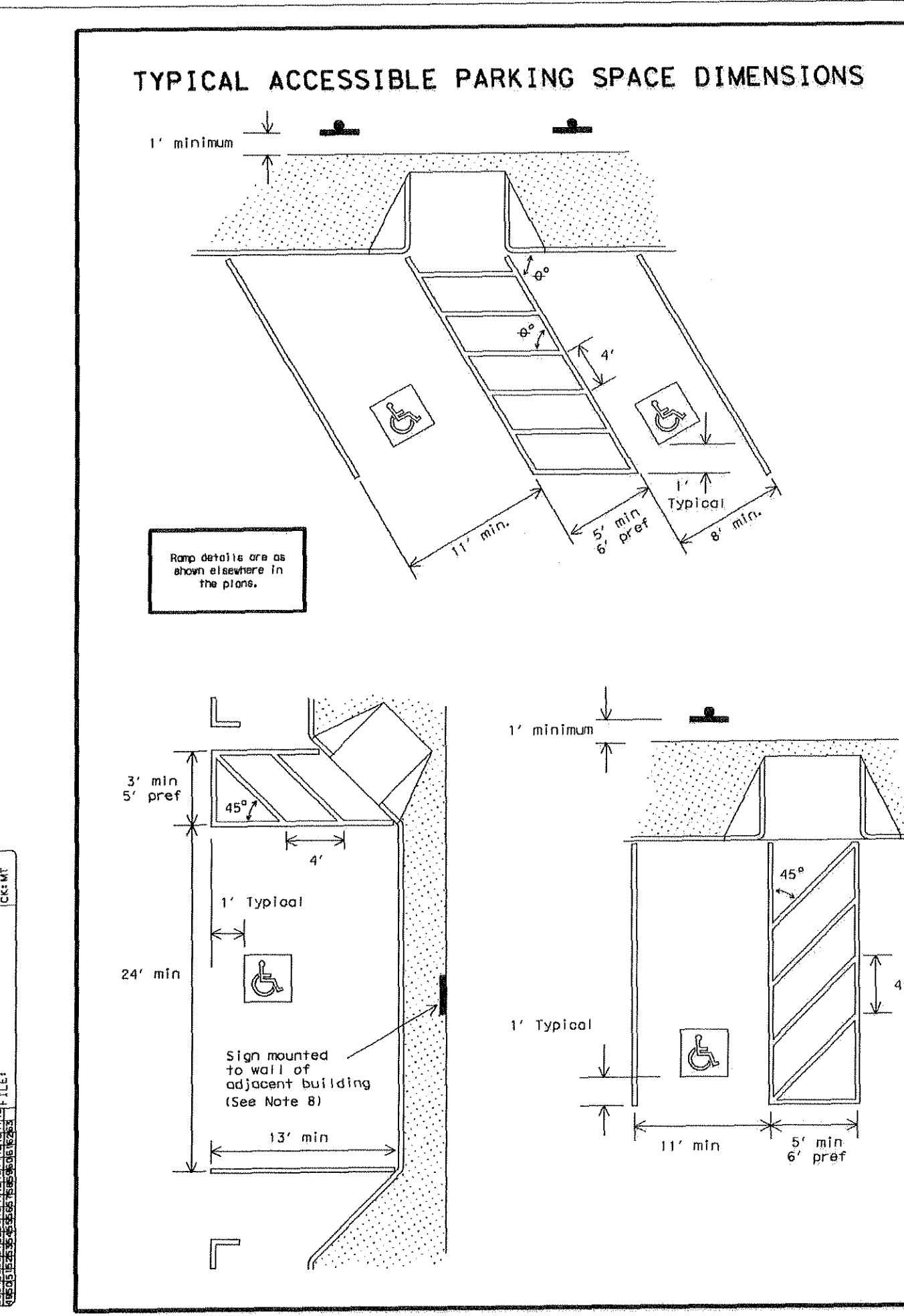
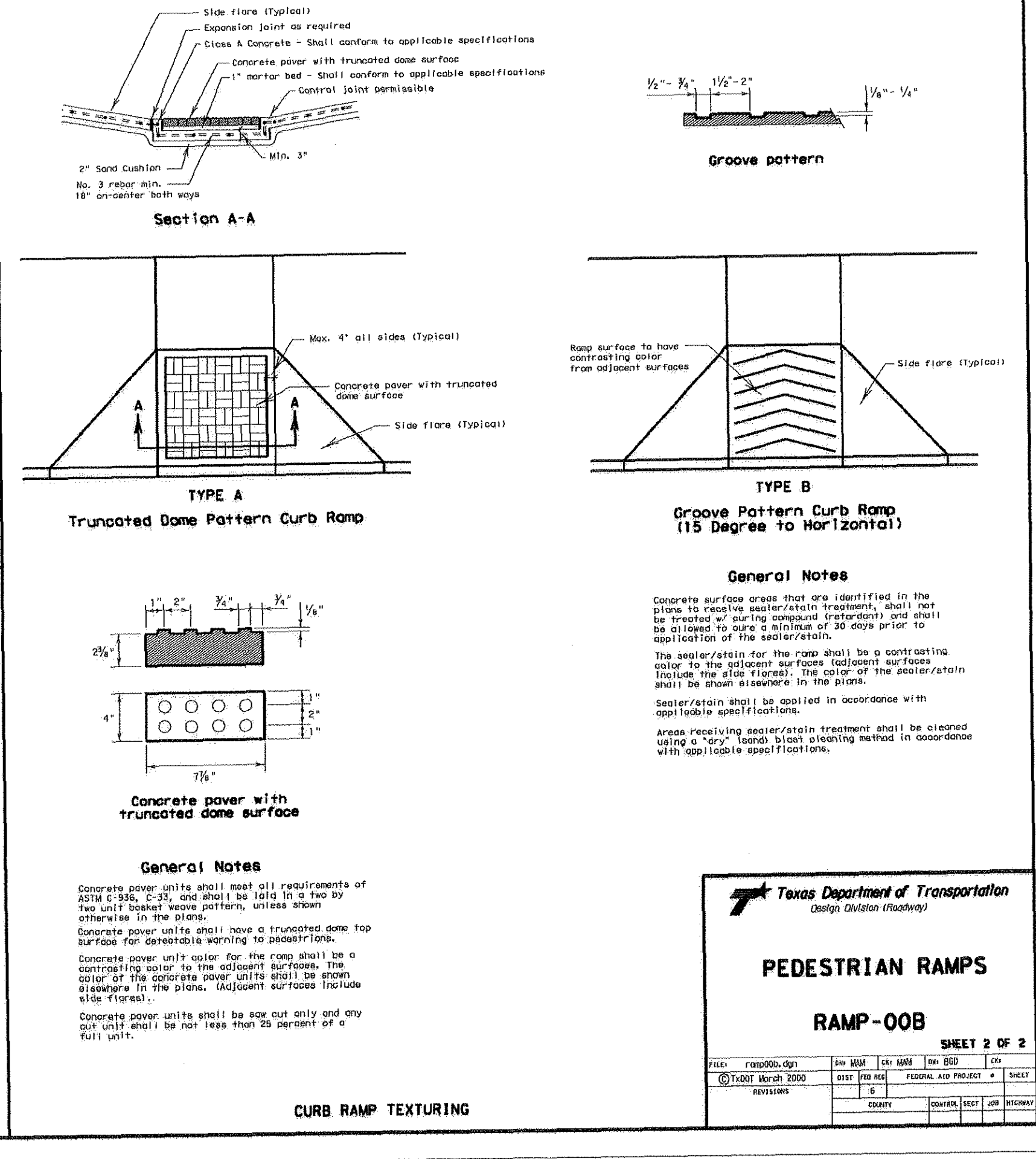
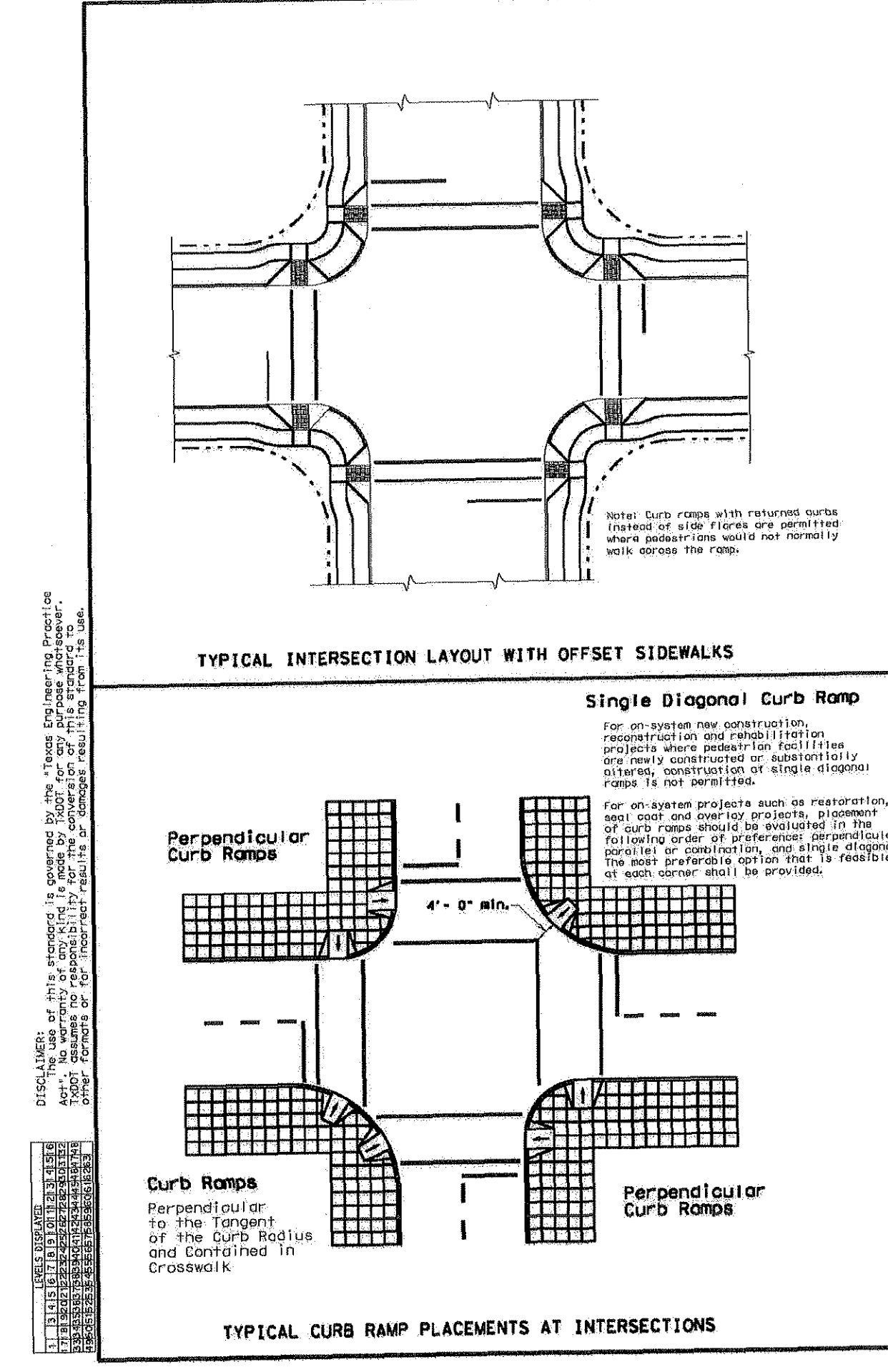
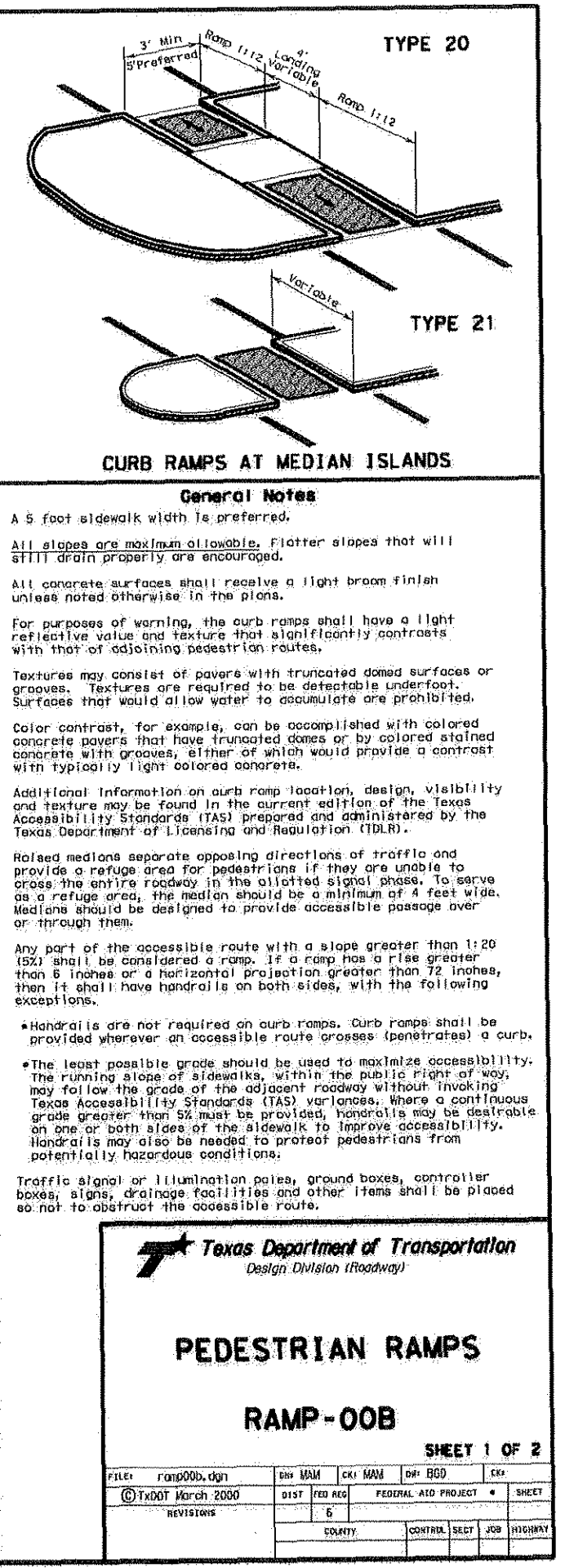
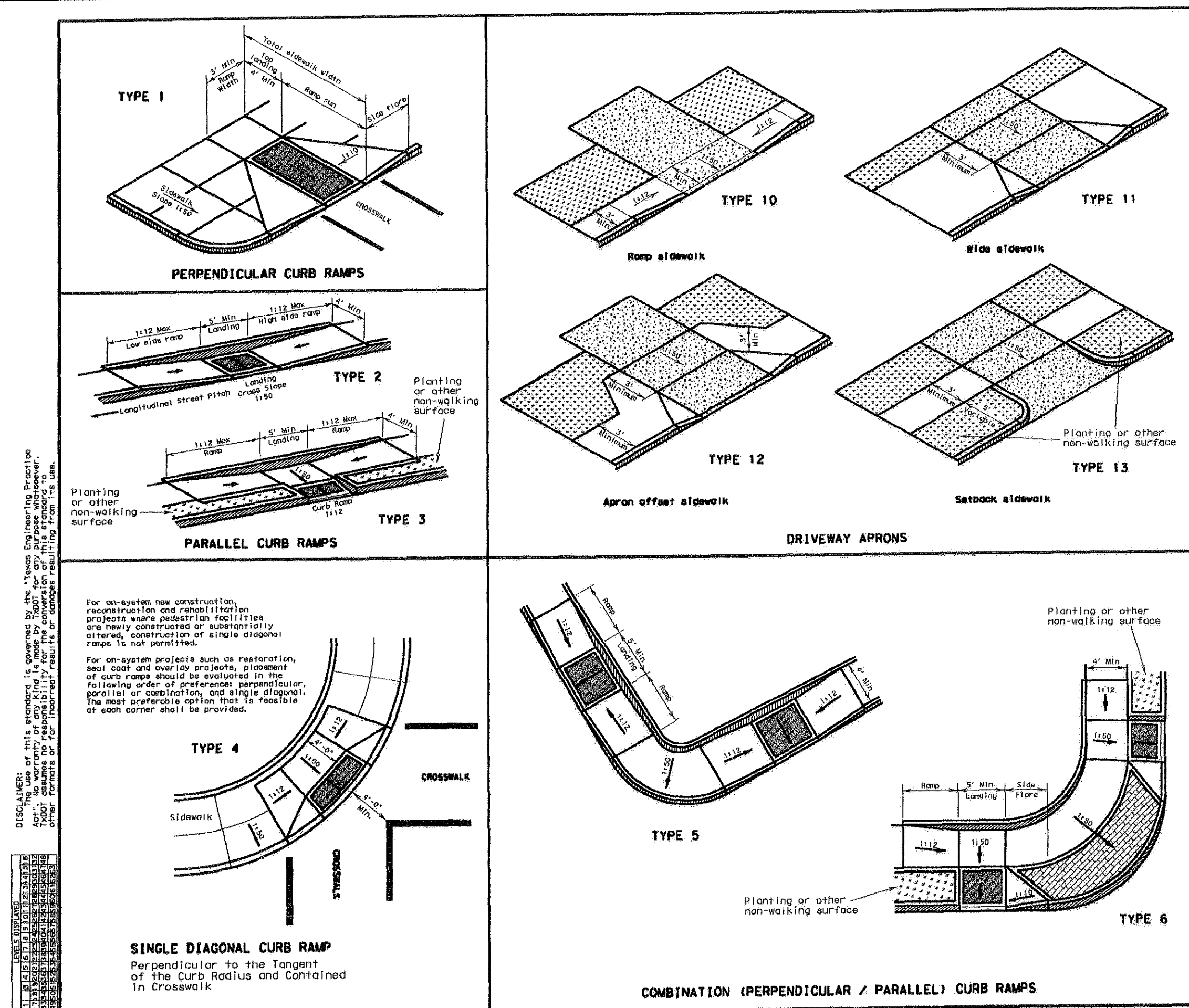
No.	DATE	REVISIONS	BY
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET
 C-9 of C-15

I.D. 1795

DWG. 06-201-D

WATERCREST PLACE - HYDROLOGY PLAN



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: SITE DETAILS

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

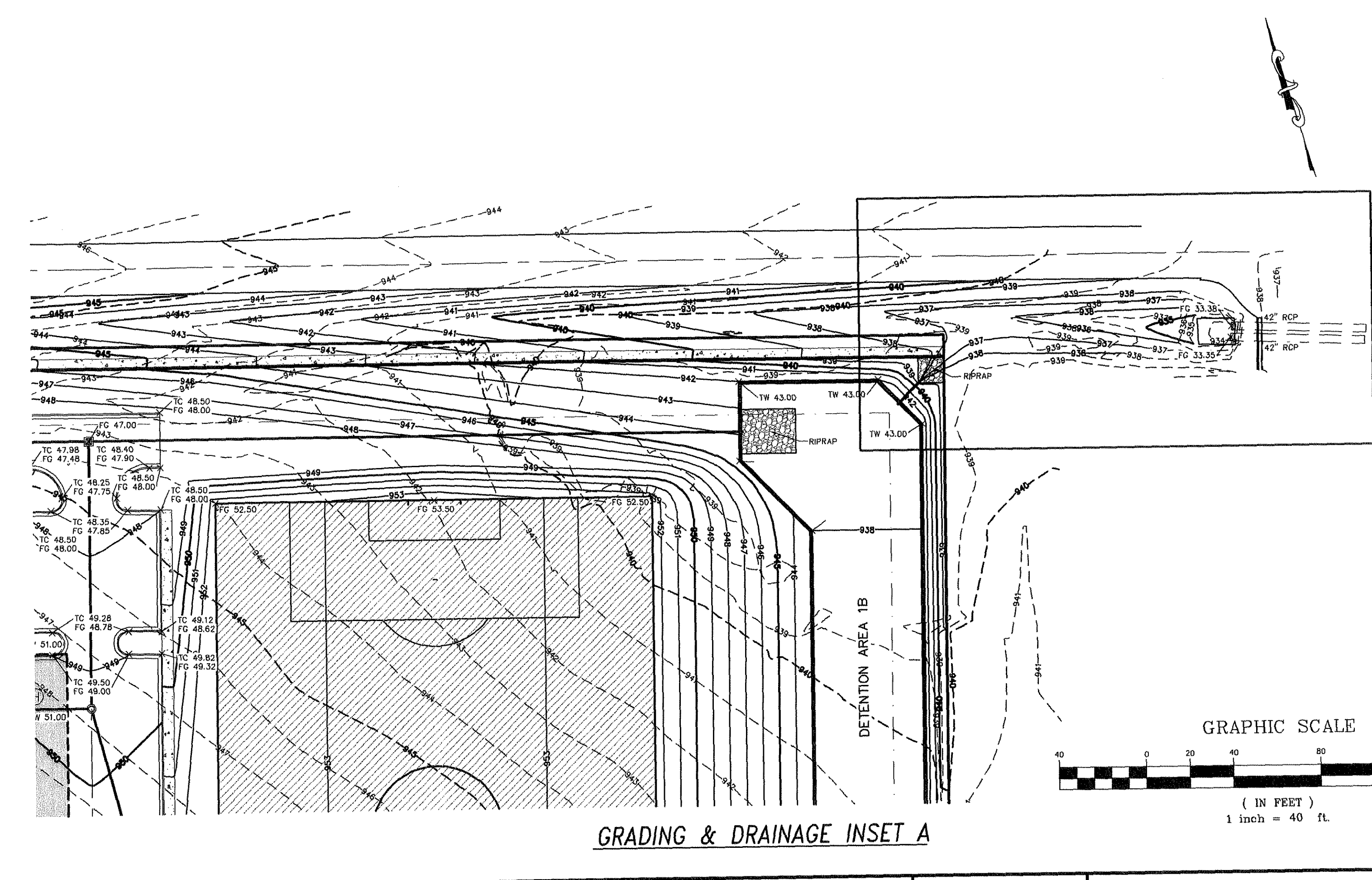
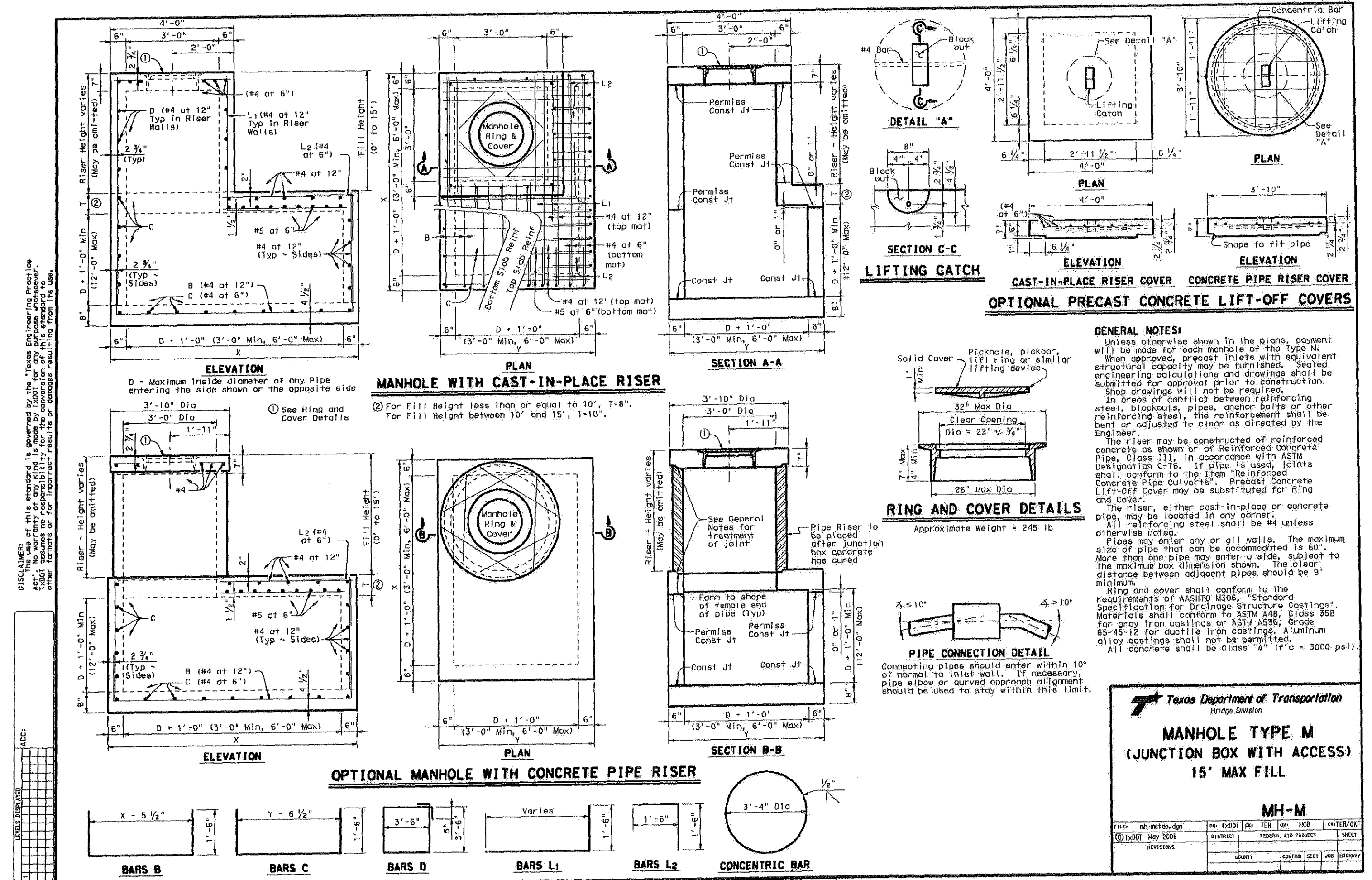
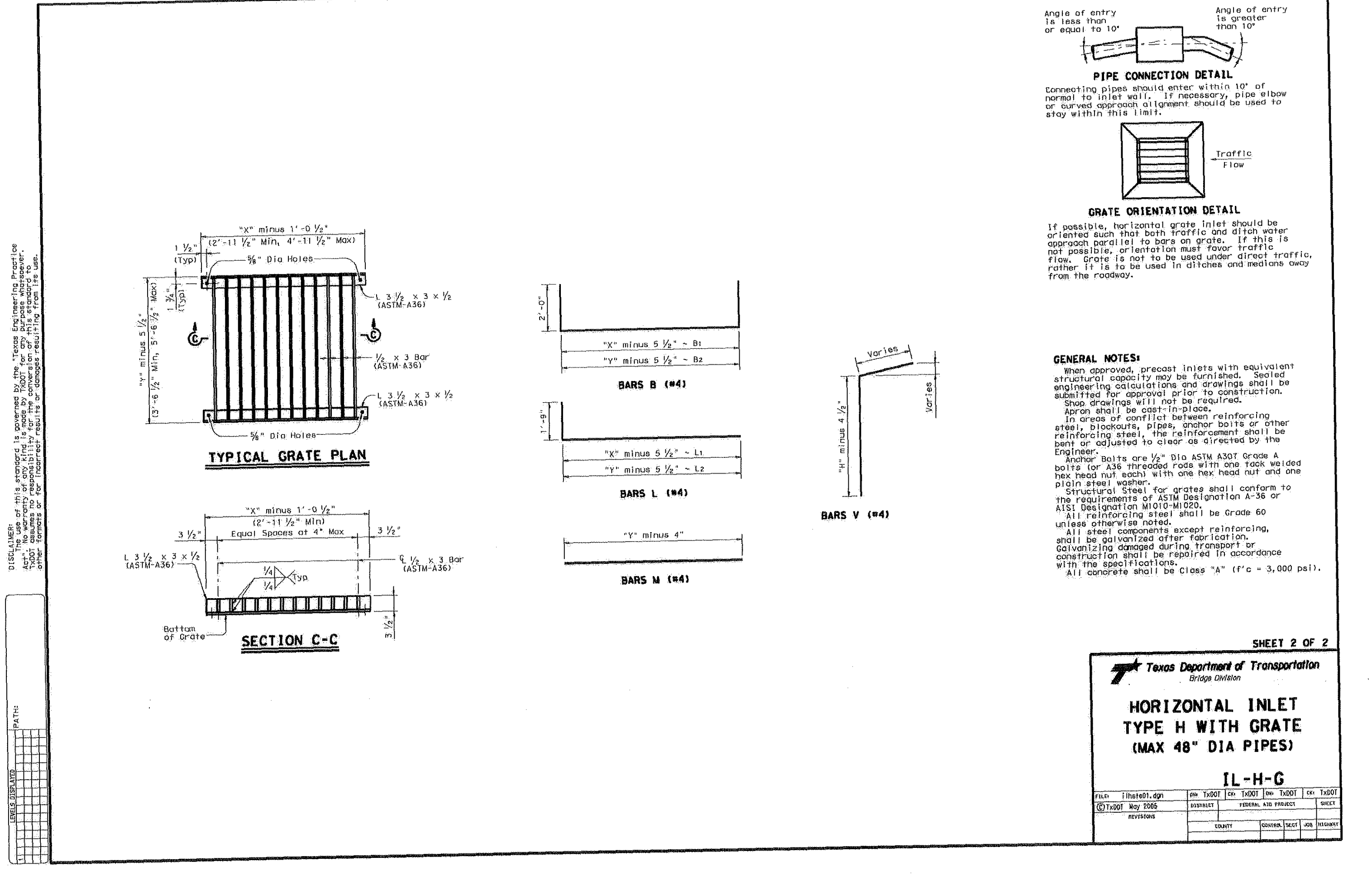
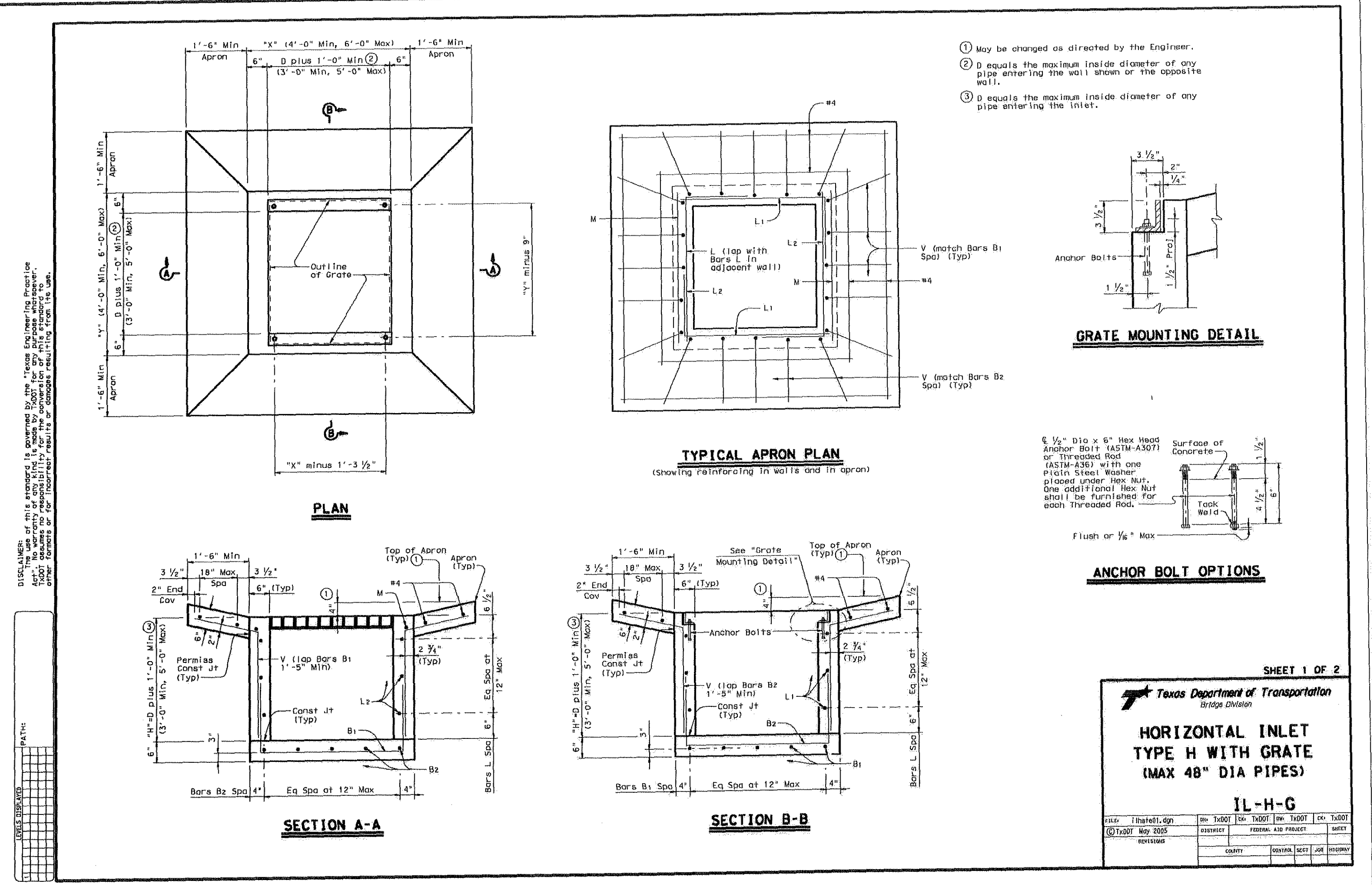
No.	DATE	REVISIONS	REMARKS	BY
2	08/10/06		CITY COMMENTS	GEJ
1	06/22/06		REVISED COMMUNITY BLDG.	GEJ

SHEET C-10 OF C-15

ID: 1795

DWG: 06-201-D

WATERCREST PLACE - SITE DETAILS



MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING
102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE: SITE DETAILS

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

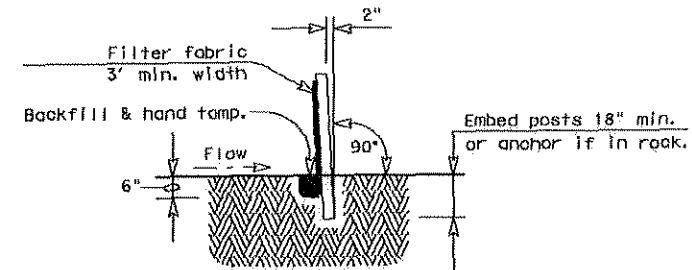
WaterCrest Place
Place Properties
22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	BY
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET
C-11 of C-15
I.D. 1785
DWG. 06-201-D

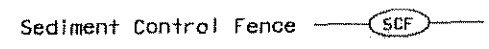
WATERCREST PLACE - SITE DETAILS



SECTION A-A

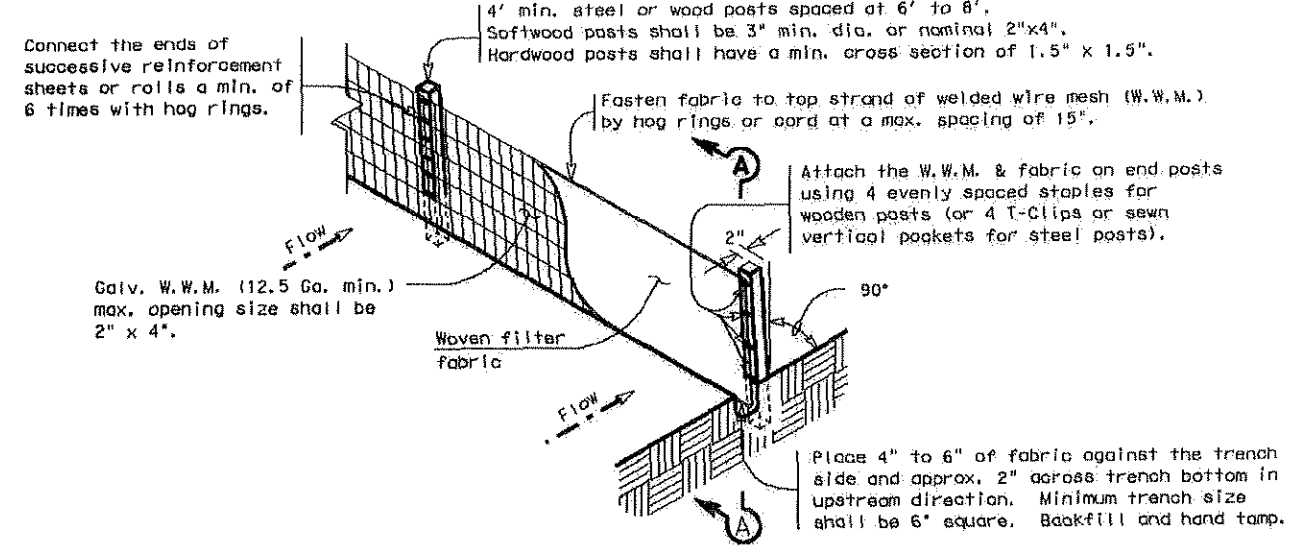
SEDIMENT CONTROL FENCE USAGE GUIDELINES
 A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year return frequency may be used to calculate the flow rate to be filtered.
 Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT². Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

PLAN SHEET LEGEND

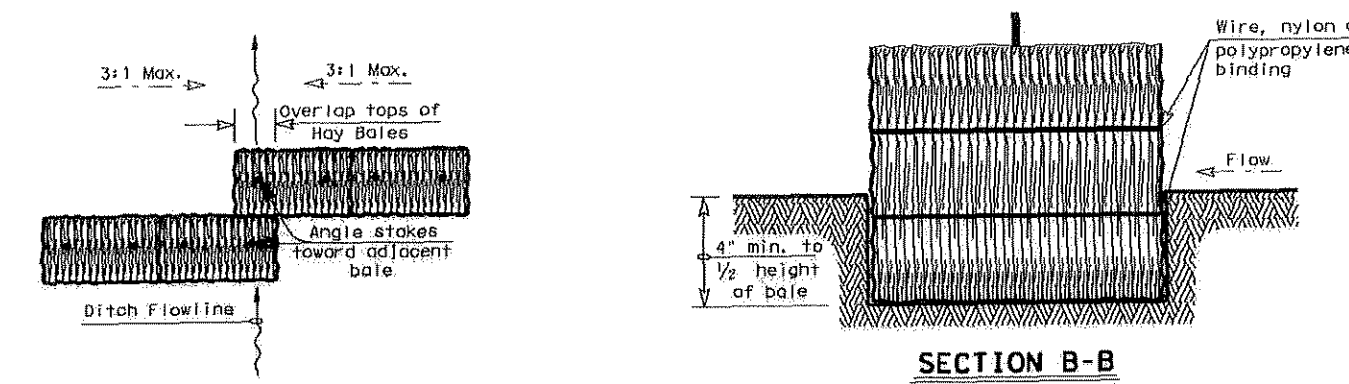


GENERAL NOTES

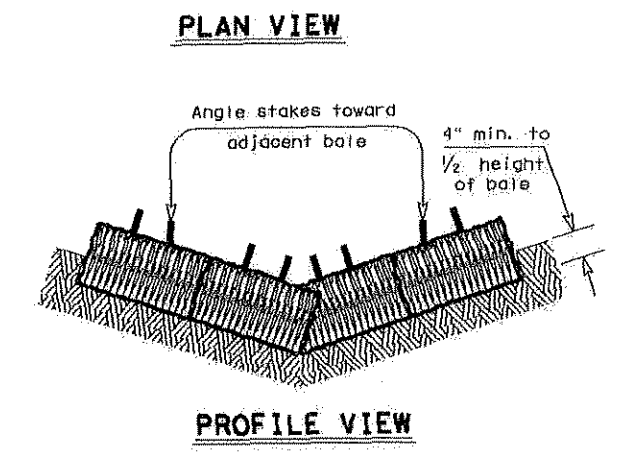
1. The guidelines shown herein are suggestions only and may be modified by the Engineer.



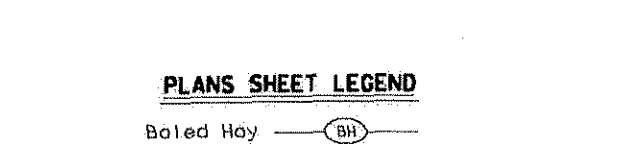
TEMPORARY SEDIMENT CONTROL FENCE



SECTION B-B

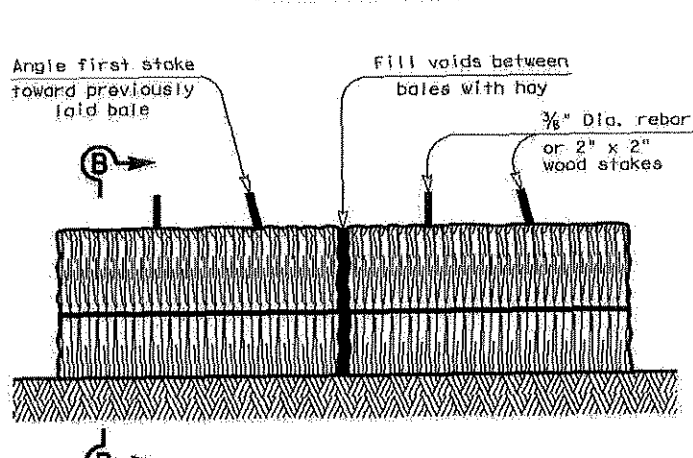


PLAN VIEW



PROFILE VIEW

PLANS SHEET LEGEND



BALED HAY FOR EROSION CONTROL

GENERAL NOTES

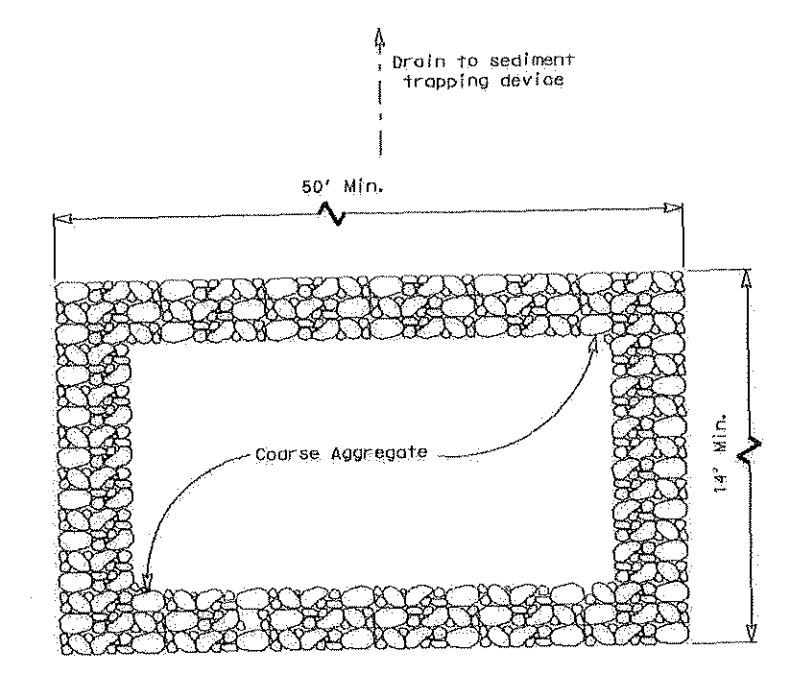
1. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 lbs.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetative matter.
3. Hay bales shall be spaced in the soil a minimum of 4" and where possible 1/2 the height of the bales.
4. Hay bales shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
5. Hay bales shall be securely anchored in place with 1/2" dia. rebar or 2" x 2" wood stakes, or even through the bales. The first stake shall be nailed towards the previously laid bale to force the bales together.
6. The guidelines shown herein are suggestions only and may be modified by the Engineer.

BALED HAY USAGE GUIDELINES

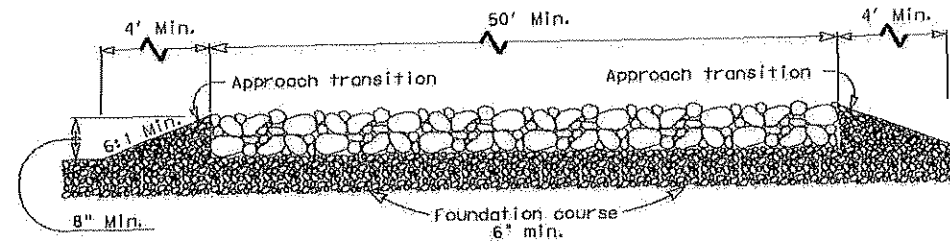
A Baled Hay Installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter a maximum flow through rate of 5 GPM/FT² of cross sectional area. Baled hay may be used at the following locations:
 1. Where the runoff approaching the baled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
 2. Where the installation will be required for less than 3 months.
 3. Where the contributing drainage area is less than 1/2 acre.
 For Baled Hay Installations in small ditches, the additional following considerations apply:
 1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate through the hay.
 2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.
 Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.

Texas Department of Transportation
 Design Division (Roadway)
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES
FENCED & BALED HAY
EC(1)-93

DATE	DESCRIPTION	BY	CHECKED
06/22/06	ISSUED FOR BIDDING	GEJ	GEJ
06/22/06	REVISED	GEJ	GEJ



PLAN

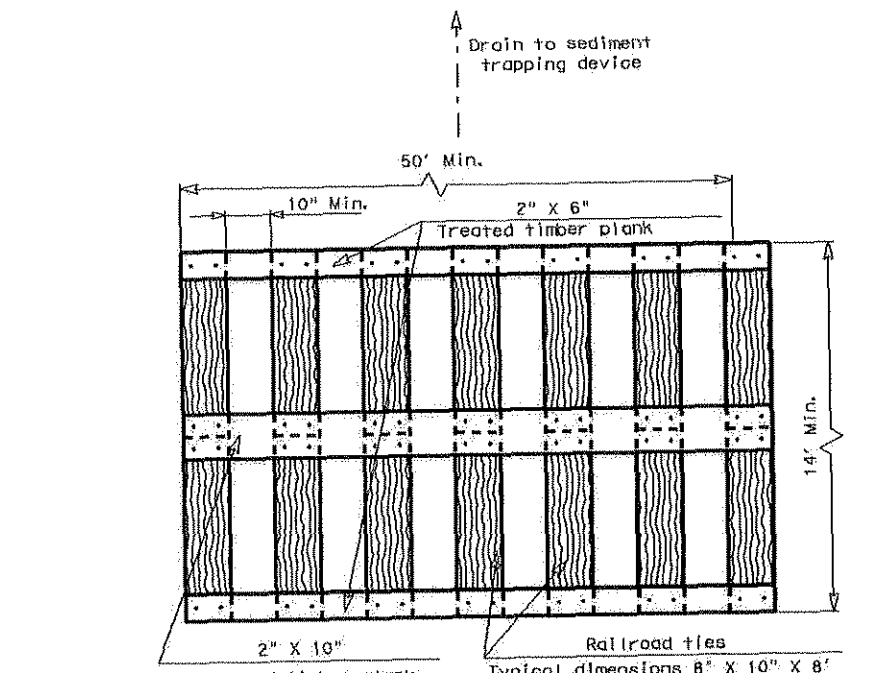


PROFILE

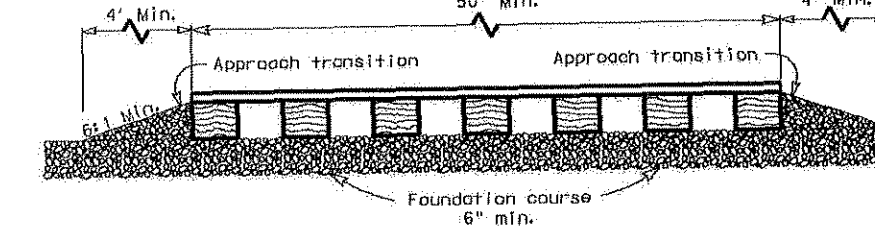
CONSTRUCTION EXIT (TYPE 1)

GENERAL NOTES

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown herein are suggestions only and may be modified by the Engineer.



PLAN

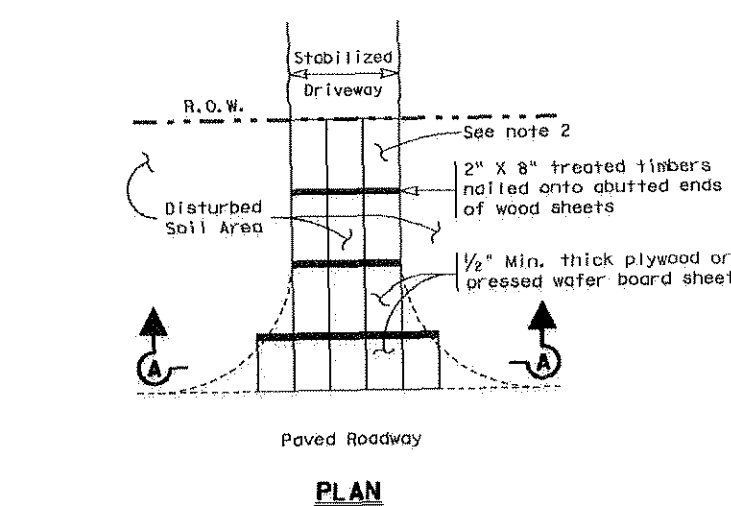


PROFILE

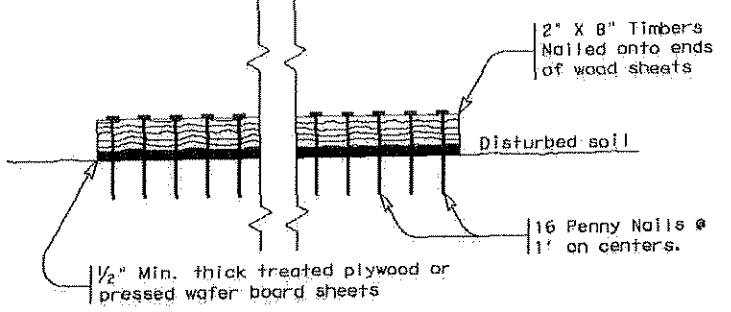
CONSTRUCTION EXIT (TYPE 2)

GENERAL NOTES

1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with 1/2" x 8" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit shall be graded to allow drainage to a sediment trapping device.
7. The guidelines shown herein are suggestions only and may be modified by the Engineer.



PLAN



SECTION A-A

CONSTRUCTION EXIT (TYPE 3)

GENERAL NOTES

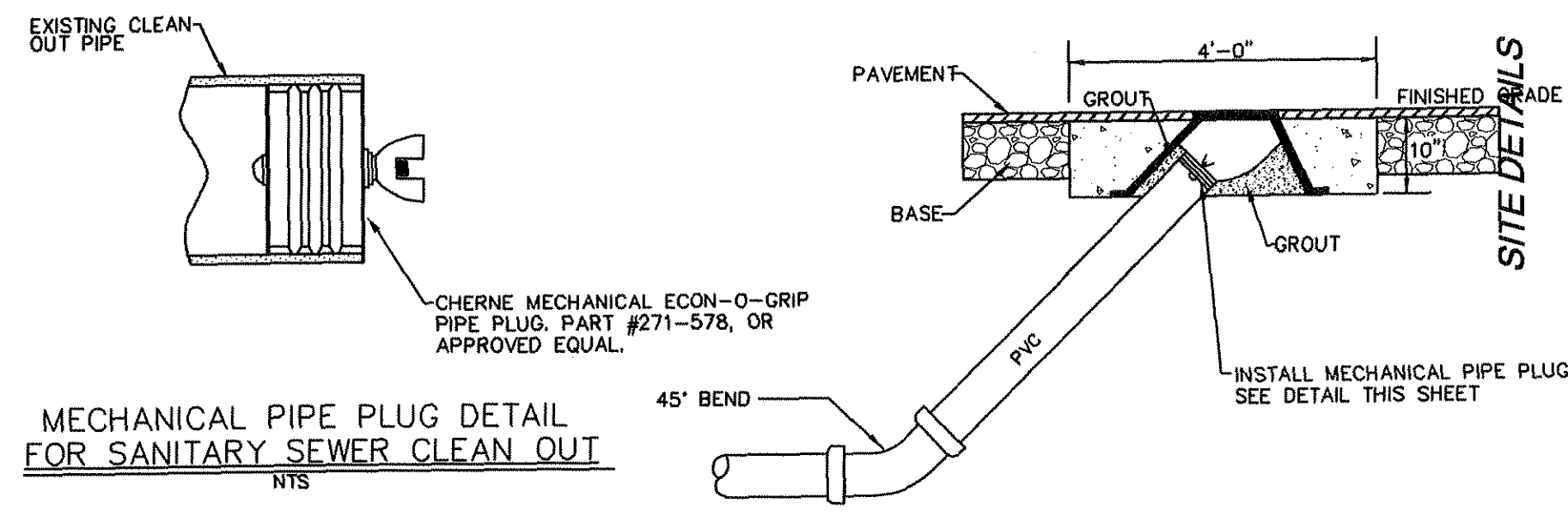
1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown herein are suggestions only and may be modified by the Engineer.

Texas Department of Transportation
 Design Division (Roadway)
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES
CONSTRUCTION EXITS
EC(3)-93

DATE	DESCRIPTION	BY	CHECKED
06/22/06	ISSUED FOR BIDDING	GEJ	GEJ
06/22/06	REVISED	GEJ	GEJ

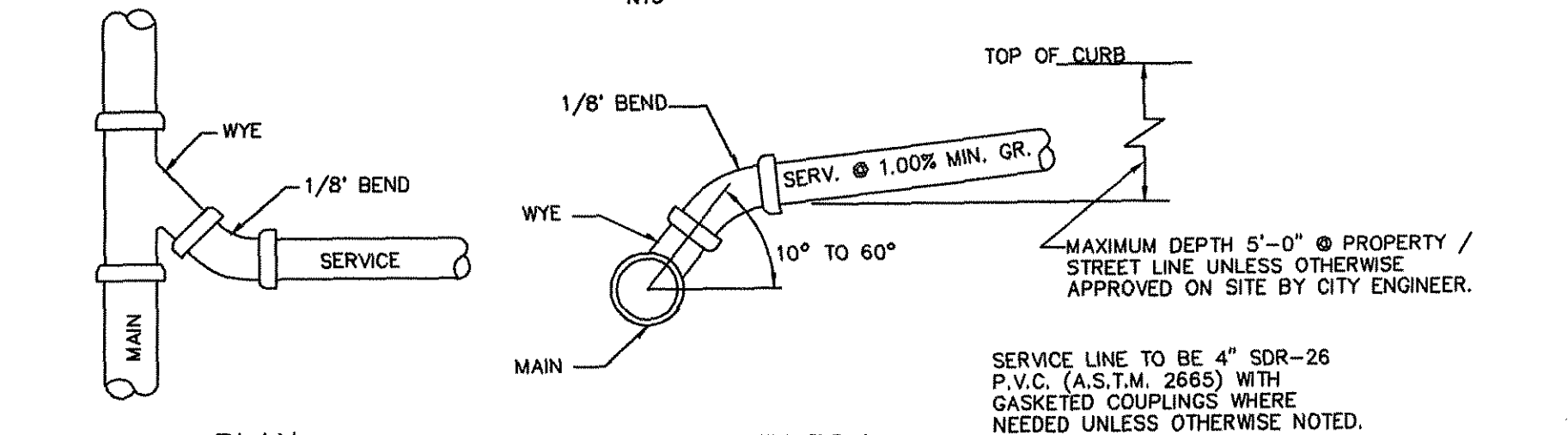
GENERAL SEWER NOTES:

1. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES BEFORE ANY EXCAVATION BEGINS. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES.
2. THE CONTRACTOR SHALL CONTACT ALL LOCAL UTILITIES AND DIG TESS BEFORE COMMENCING ANY EXCAVATION OR DIGGING OPERATIONS.
3. BRACE UTILITY POLES AS REQUIRED TO MAINTAIN STABILITY OF THE POLES DURING CONSTRUCTION.
4. NO MANHOLES SHALL BE RAISED MORE THAN 1'-0" THROUGH THE USE OF GRADE RINGS.
5. NO PLASTIC OR BRICK MANHOLES SHALL BE BUILT.
6. FIBERGLASS MANHOLES ACCEPTABLE ONLY WHERE SHOWN ON PLANS AND AS DETAILED BY SEPARATE DRAWING.
7. ALL MATERIALS SHALL BE DOMESTIC / USA.
8. WHEN CROSSING ROADWAYS, CRUSHED LIMESTONE BASE MATERIAL SHALL BE TxDOT ITEM 248, TYPE A. GRADE 2 AND SHALL BE COMPACTED TO A MINIMUM OF 95% A.S.T.M. D1557, METHOD D @ + OR - 2% OPTIMAL MOISTURE AND LIFTS NOT TO EXCEED 6 INCHES.
9. ALL INFRASTRUCTURE SHALL MEET MINIMUM CURRENT EFFECTIVE TCEQ STANDARDS.

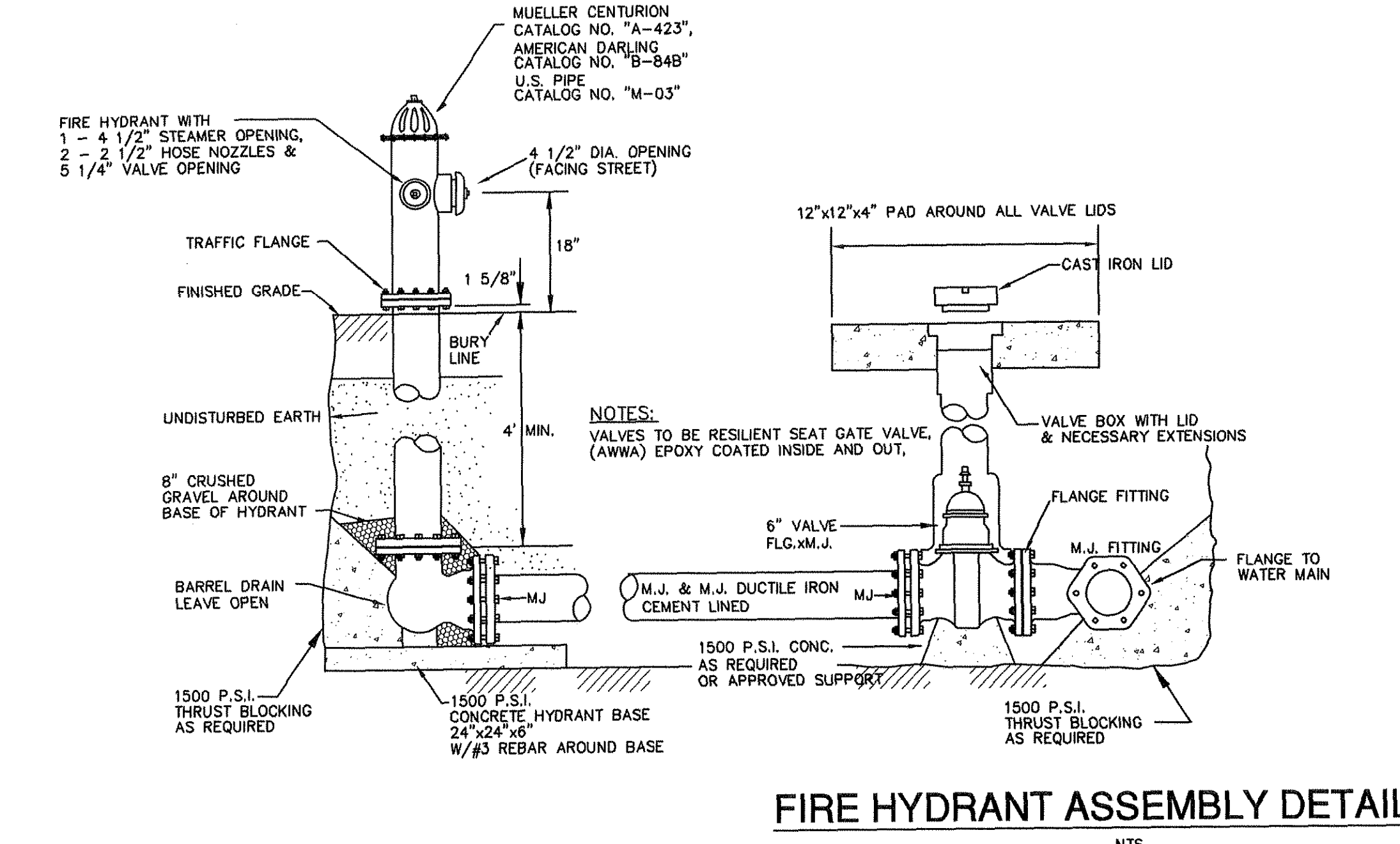


MECHANICAL PIPE PLUG DETAIL FOR SANITARY SEWER CLEAN OUT

TYPICAL SECTION OF SEWER CLEANOUT



SEWER TAP DETAILS



FIRE HYDRANT ASSEMBLY DETAIL

FIRE HYDRANT NOTES:

1. FIRE LINE SHALL HAVE JOINT RESTRAINT FROM MAIN TO HYDRANT
2. CRUSHED STONE OR GRAVEL SHALL BE PLACED AROUND THE BOTTOM OF THE HYDRANT FOR A RADIUS OF AT LEAST 12", AND EXTEND AT LEAST 12" ABOVE THE OUTLET. DO NOT BLOCK DRAIN HOLES.
3. VALVE EXTENSION BARREL & STEM ARE REQUIRED ON ALL VALVES THAT EXCEED 4' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 18" AND 24" FROM FINISHED GRADE.
4. FOR BURY DEPTHS GREATER THEN FIVE (5) FEET, ONE BARREL EXTENSION SHALL BE PROPERLY PLACED WHEN NEEDED TO ACCOMMODATE FIRE HYDRANTS.
5. CONCRETE SHALL NOT BE IN CONTACT WITH BOLTS OR NUTS.
6. ALL FITTINGS TO BE WRAPPED IN PLASTIC WHERE CONCRETE IS PLACED.
7. FIRE HYDRANT INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
8. IF GRADELOK IS INSTALLED THRUST BLOCKS MAY NOT BE REQUIRED.

MITCHELL & ASSOCIATES, INC.
 ENGINEERING & SURVEYING
 102 N. COLLEGE STREET
 KILLEEN, TEXAS 76541
 PHONE: (254) 634-5541
 FAX: (254) 634-2141

SEAL: 8-11-06
 STATE OF TEXAS
 MIKE W. KRIEGLER
 83017
 LICENSED PROFESSIONAL ENGINEER

SHEET TITLE: **SITE DETAILS**

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT:
GEJ	JUNE 2006	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

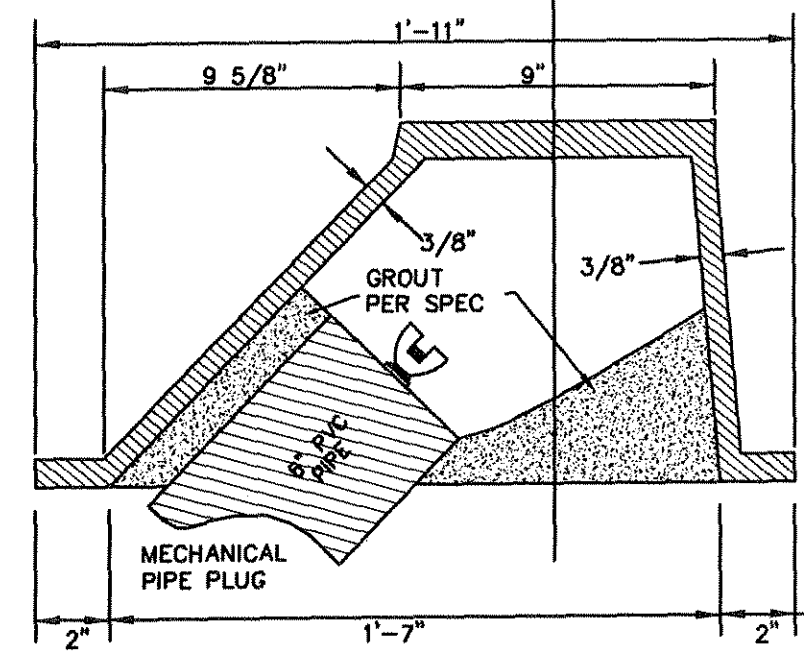
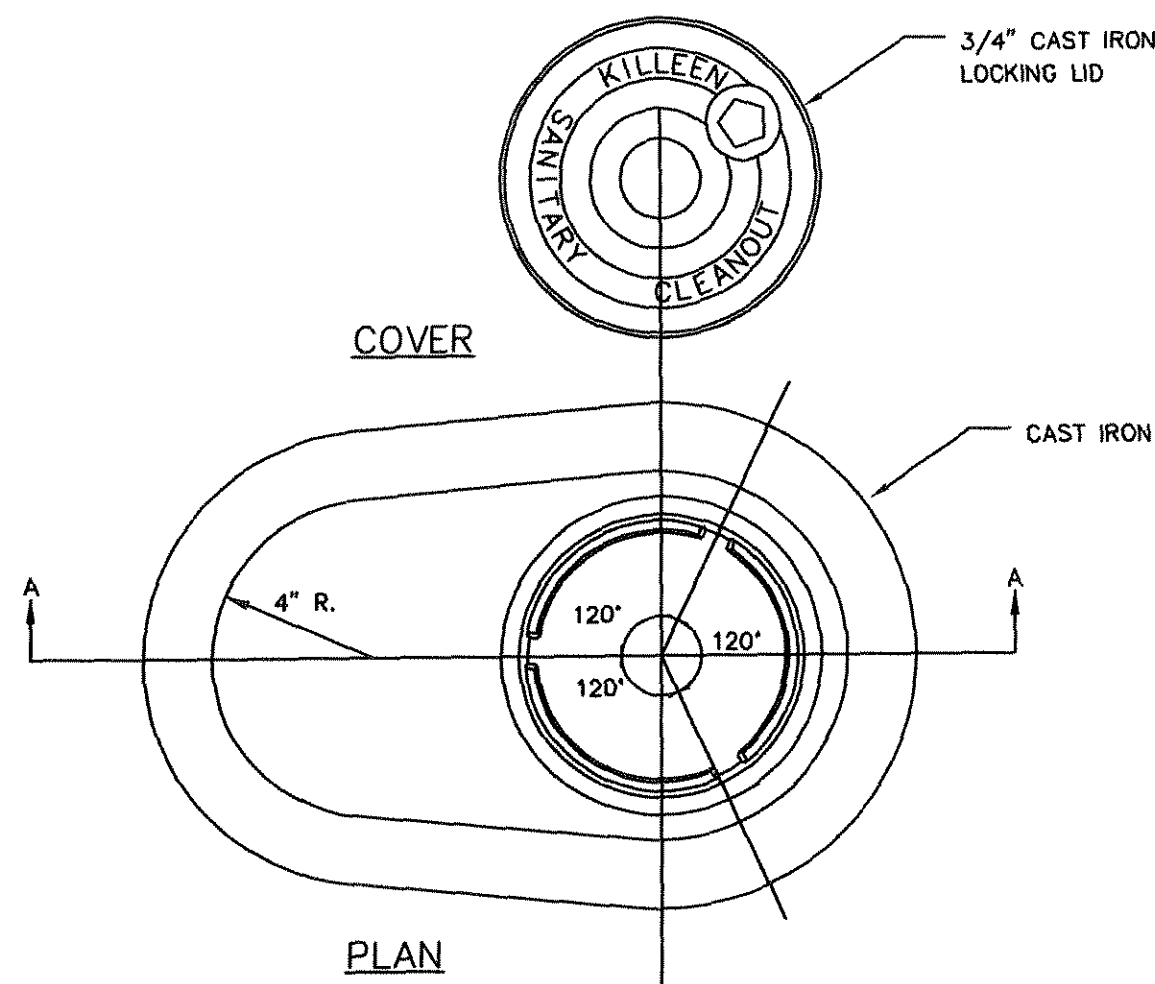
WaterCrest Place
 Place Properties
 22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
 KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS
 MONUMENT S.E.
 CORNER OF S.H. 201
 & WATERCREST RD.
 ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
2	08/10/06		CITY COMMENTS	GEJ
1	06/22/06		REVISED COMMUNITY BLDG.	GEJ

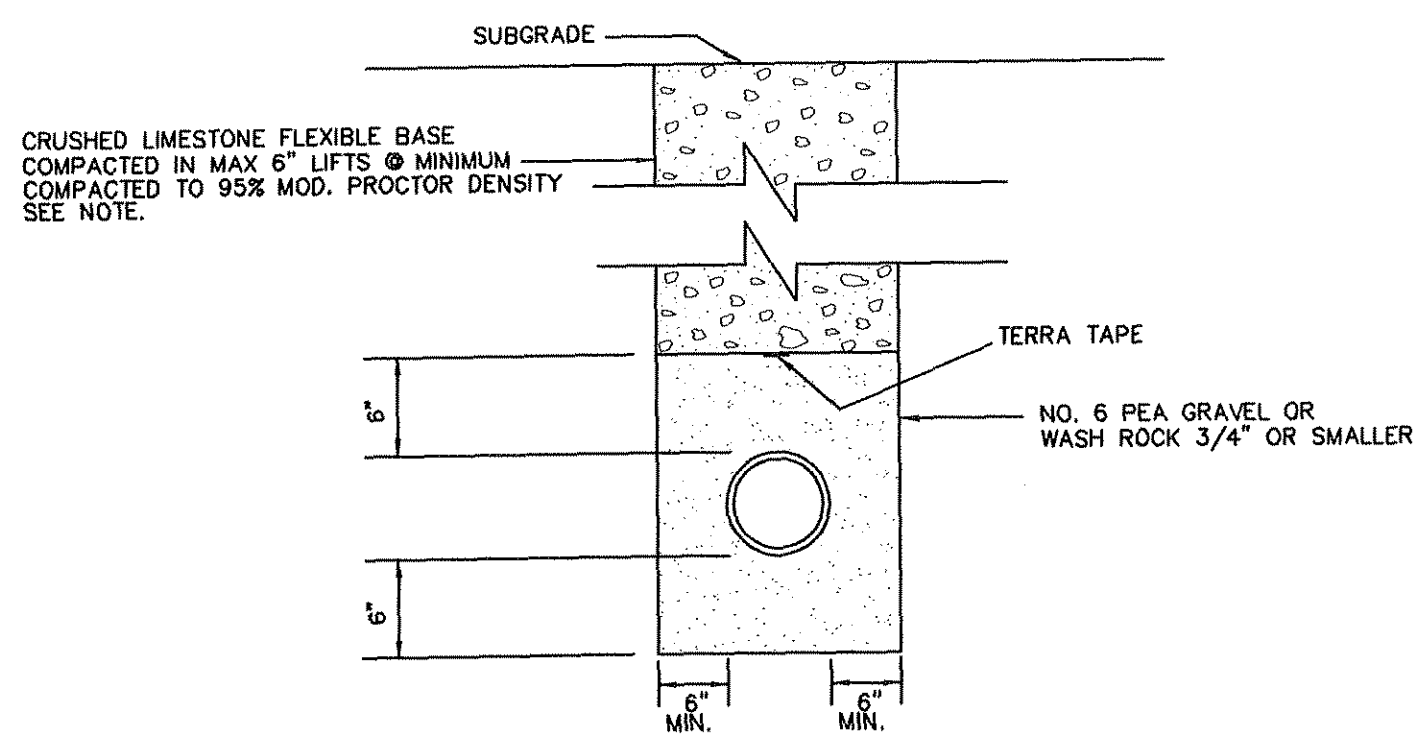
SHEET
 C-12 of C-15
 I.D. 1795
 DWG. 06-201-D

WATERCREST PLACE - SITE DETAILS

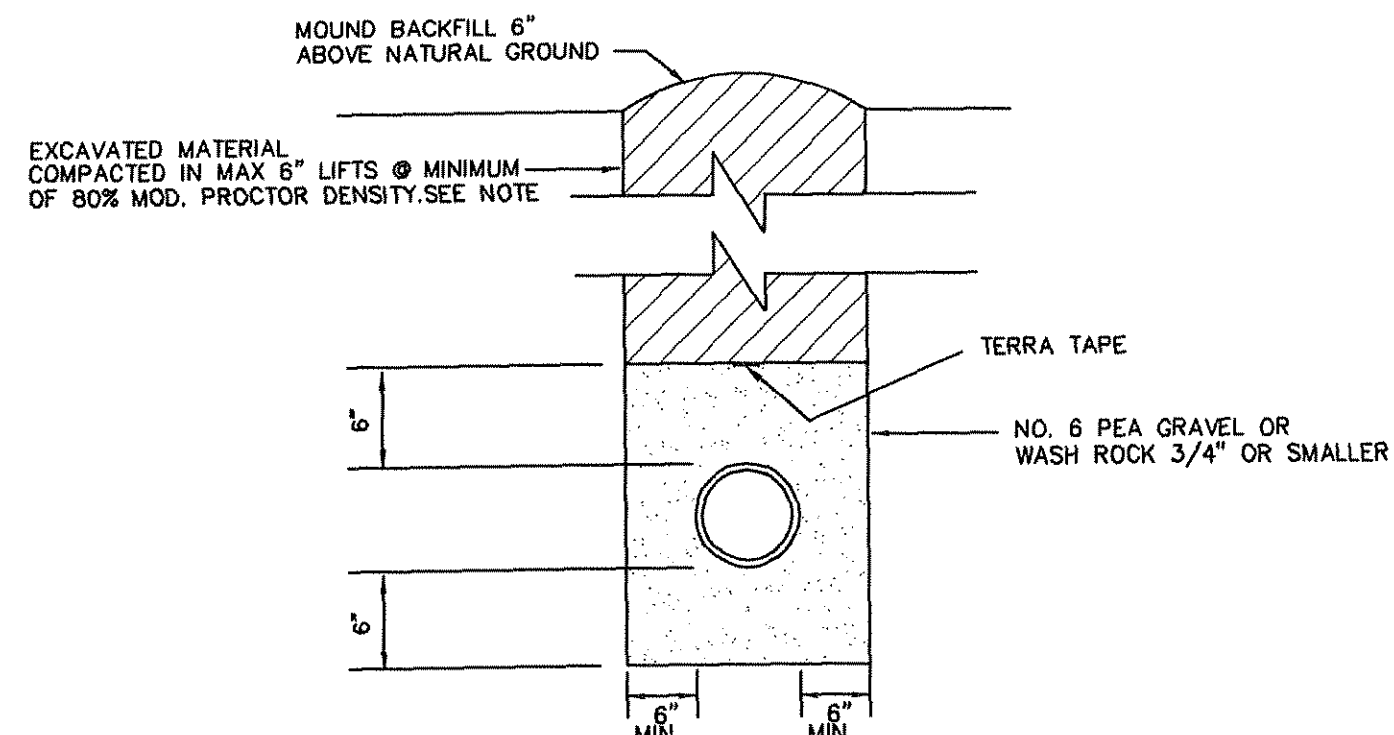


- NOTES:**
- CLEANOUT AND FITTINGS SHALL BE 6".
 - USE 8"x6" REDUCER WHERE SEWER IS 8" IN SIZE.
 - BACKFILL IN AROUND AND OVER CLEANOUT PIPE SHALL BE TAMPAED AT 85% MODIFIED PROCTOR OF SOIL.

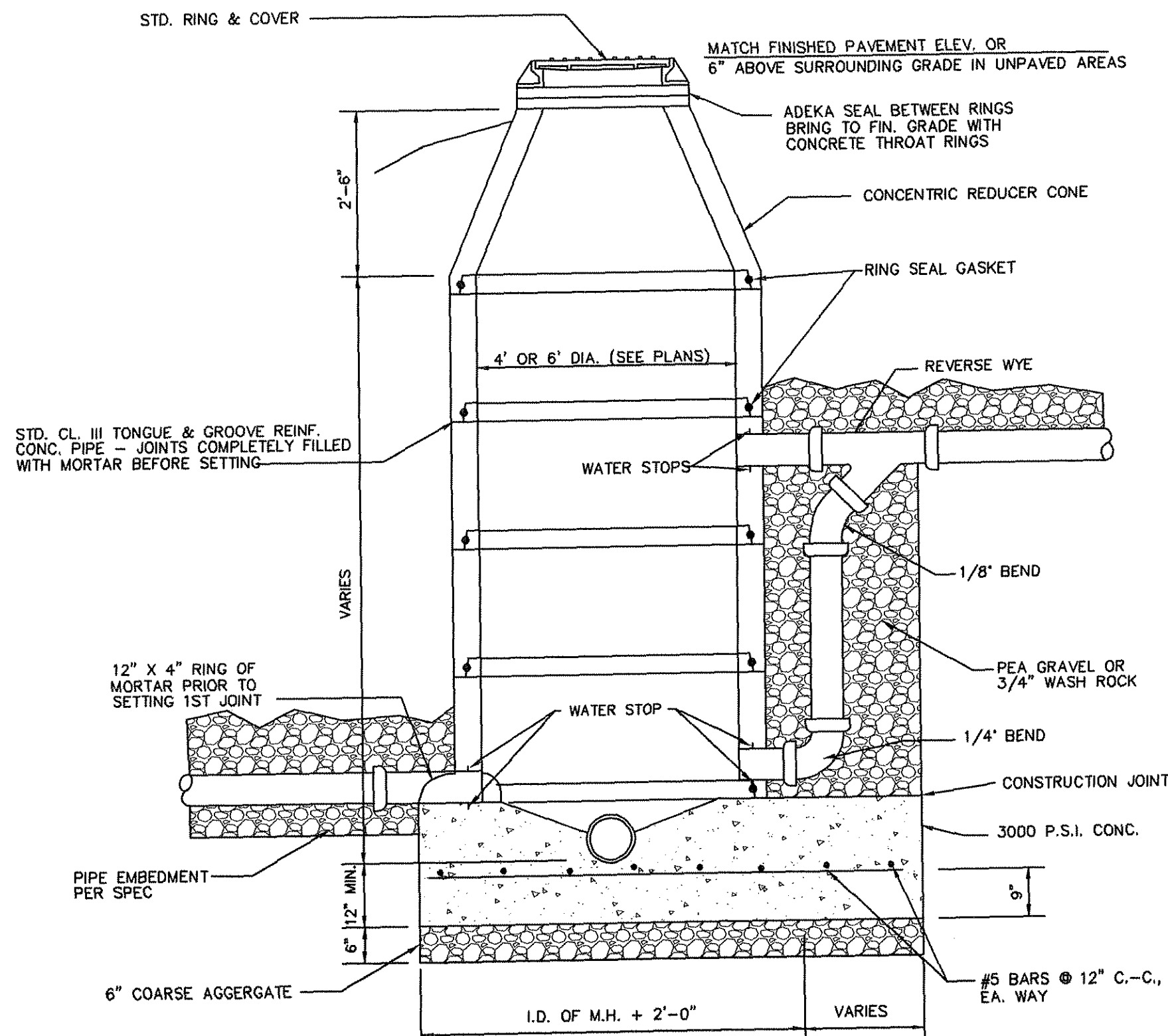
CLEANOUT LID DETAIL



PIPE EMBEDMENT & BACKFILL DETAILS



PIPE EMBEDMENT & BACKFILL DETAILS

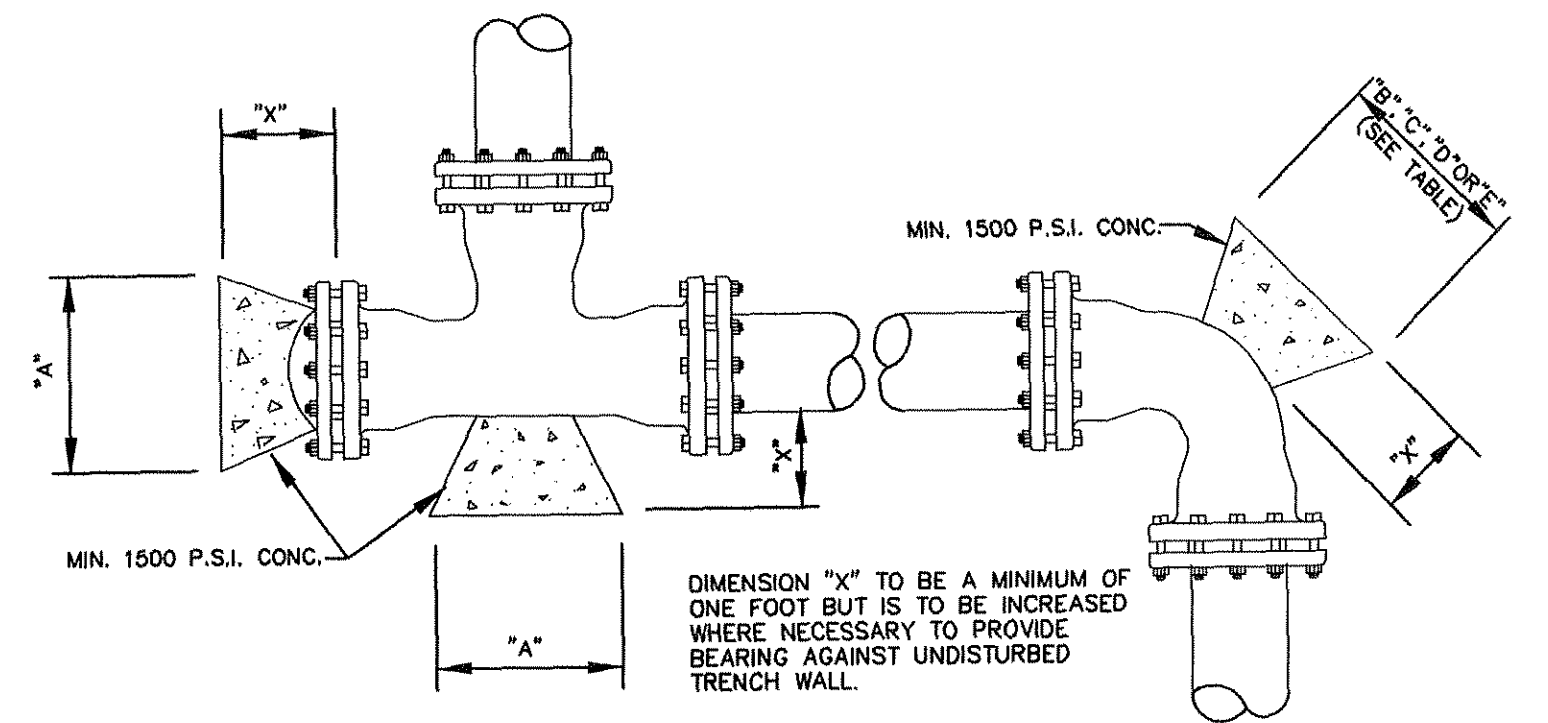


- NOTES:**
- MANHOLES SHALL BE PRECAST OR MONOLITHIC CONCRETE MANHOLES. MONOLITHICALLY PLACED MANHOLES SHALL BE CONSTRUCTED OF 3000# CONCRETE.
 - ALL POURED IN PLACE MANHOLES SHALL BE POURED MONOLITHICALLY, EXCEPT AS APPROVED BY THE CITY ENGINEER OR AS SHOWN ON PLANS.
 - FOR P.V.C. MAINS, USE DOUBLE FLANGED PIPE COLLARS AT MANHOLES FOR INFILTRATION-EXFILTRATION CONTROL.
 - THE MANHOLE BASE SHALL BE BEDDED ON 6" COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
 - INSTALL DROP FITTING WHERE SHOWN ON PLANS.
 - PRECAST MANHOLES SHALL MEET ASTM SPECIFICATIONS.

CONCRETE MANHOLE

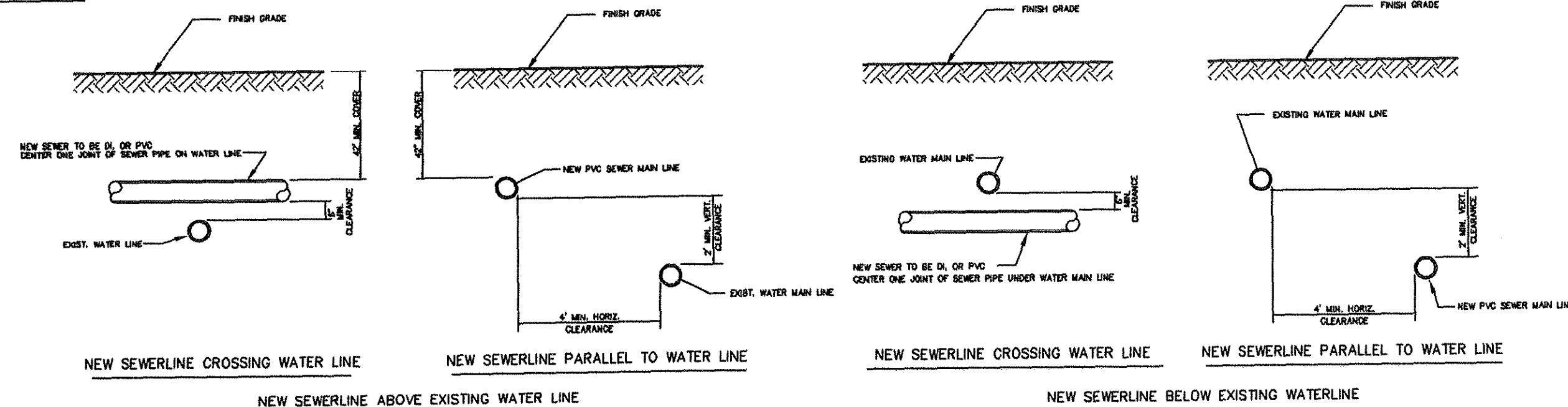
GENERAL WATER NOTES:

- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES BEFORE EXCAVATION BEGINS. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES.
- THE CONTRACTOR SHALL CONTACT ALL LOCAL UTILITIES AND DIG TESS BEFORE COMMENCING ANY EXCAVATION OR DIGGING OPERATIONS.
- BRACE UTILITY POLES AS REQUIRED TO MAINTAIN STABILITY OF THE POLES DURING CONSTRUCTION.
- BLOCK ALL BENDS, TEES, WYES, PLUGS, AND ALL HORIZONTAL OR VERTICAL POINTS OF INTERSECTION GREATER THAN 5' USING SHORT-BODIED FITTINGS PER STANDARD WATER DETAILS.
- CONCRETE SHALL NOT BE IN CONTACT WITH BOLTS OR NUTS.
- ALL FITTINGS SHALL BE WRAPPED IN PLASTIC WHERE CONCRETE IS PLACED.
- ALL MATERIALS SHALL BE DOMESTIC / USA.
- WHEN CROSSING ROADWAYS, CRUSHED LIMESTONE BASE MATERIAL SHALL BE TxDOT ITEM 24B, TYPE A, GRADE 2 AND SHALL BE COMPACTED TO A MINIMUM OF 95% A.S.T.M. D1557, METHOD D @ + OR - 2% OPTIMAL MOISTURE AND LIFTS NOT TO EXCEED 6 INCHES.
- ALL INFRASTRUCTURE SHALL MEET MINIMUM CURRENT EFFECTIVE TCEQ STANDARDS.

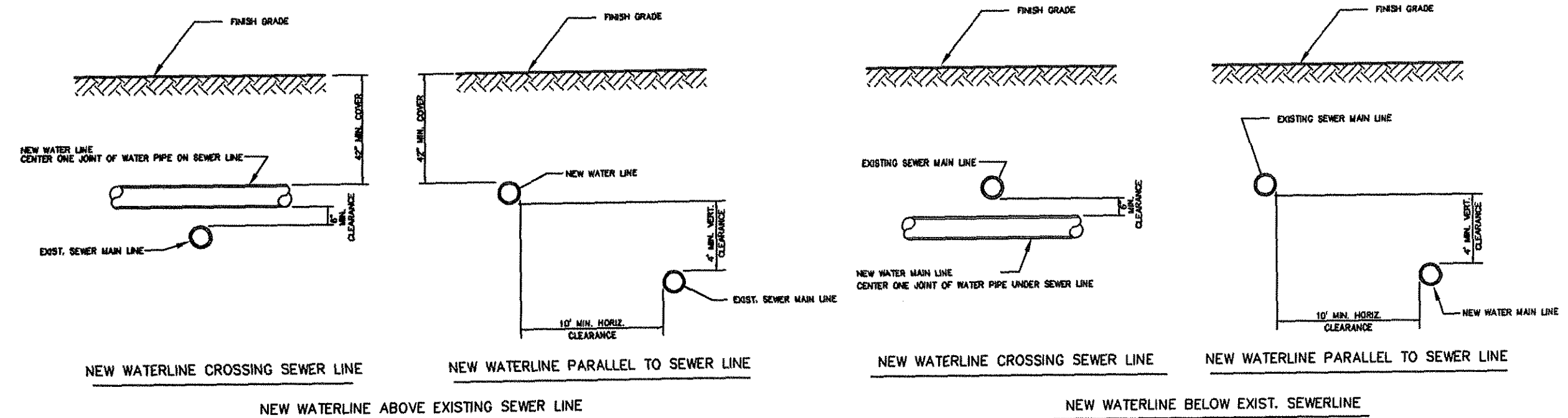


PIPE SIZE	"X" DIM.	HORIZONTAL BLOCKING TABLE										
		PLUGS & TEES		90° BENDS		45° BENDS		22 1/2° BENDS		11 1/4° BENDS		
		MIN. AREA	MAX. VOL.	MIN. AREA	MAX. VOL.	MIN. AREA	MAX. VOL.	MIN. AREA	MAX. VOL.	MIN. AREA	MAX. VOL.	
4"	1'-0"	.83	.05	1'-0"	.83	.05	1'-0"	.83	.05	1'-0"	.83	.05
6"	1'-0"	1.08	.06	1'-2"	1.50	.09	1'-0"	.83	.05	1'-0"	.83	.05
8"	1'-0"	1.89	.11	1'-6"	2.66	.15	1'-3"	1.44	.08	1'-0"	.83	.05
10"	1'-0"	2.95	.17	2'-0"	4.17	.24	1'-6"	2.26	.13	1'-3"	1.15	.07
12"	1'-0"	4.25	.24	2'-3"	6.00	.34	1'-9"	3.25	.18	1'-3"	1.65	.10
16"	2'-0"	7.54	.56	3'-0"	10.65	.79	2'-3"	5.29	.28	1'-6"	2.94	.22
18"	2'-0"	7.70	.57	3'-9"	10.89	.82	2'-6"	5.89	.44	1'-10"	3.01	.22
20"	2'-0"	7.86	.59	3'-9"	11.12	.84	2'-9"	6.01	.45	2'-0"	3.07	.23
24"	2'-0"	8.84	.64	4'-3"	16.00	1.20	3'-2"	8.65	.65	2'-6"	4.42	.33

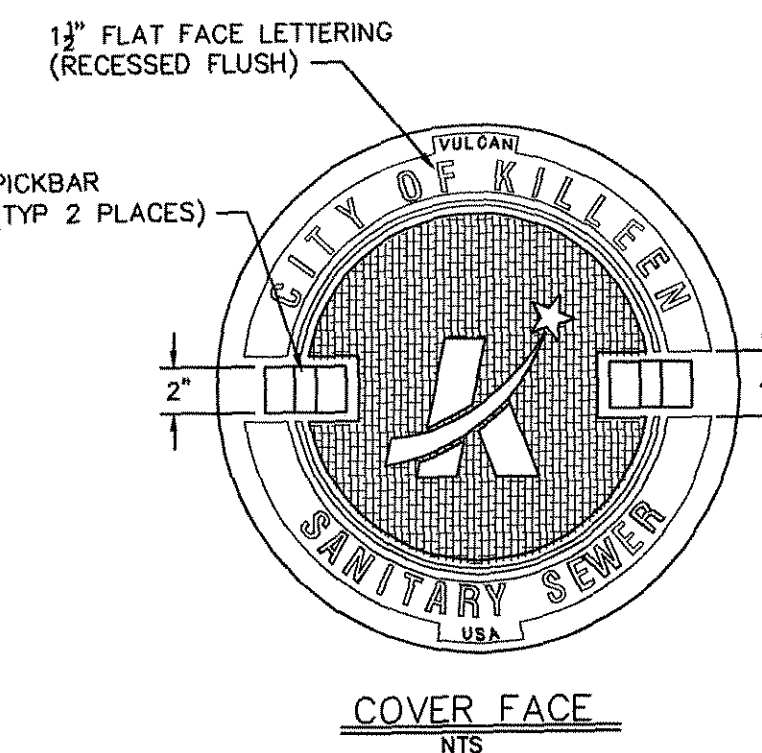
HORIZONTAL BLOCKING DETAIL



NEW SANITARY SEWERLINE-UTILITY CROSSING DETAILS

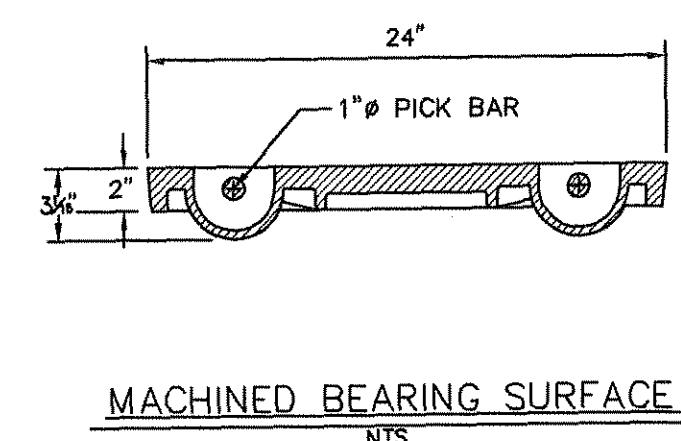


NEW WATERLINE-UTILITY CROSSING DETAILS

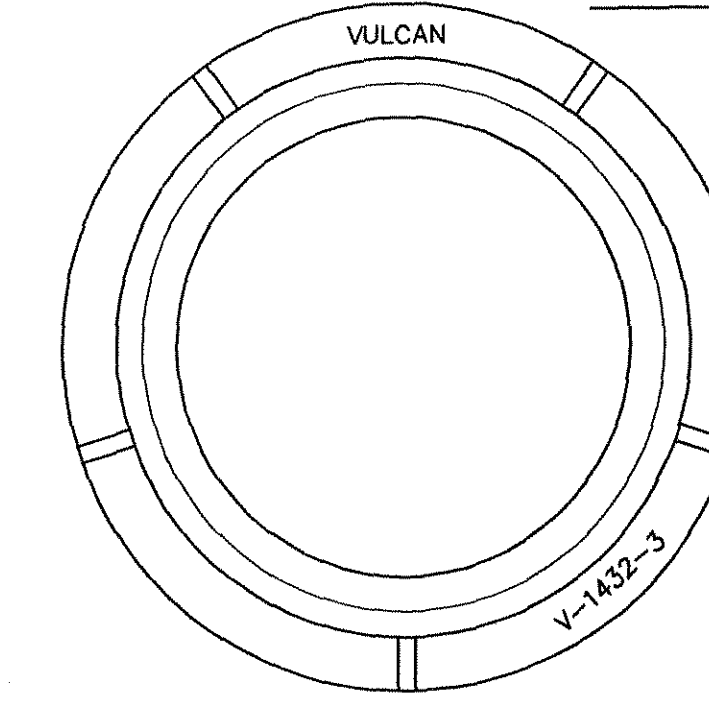


COVER FACE

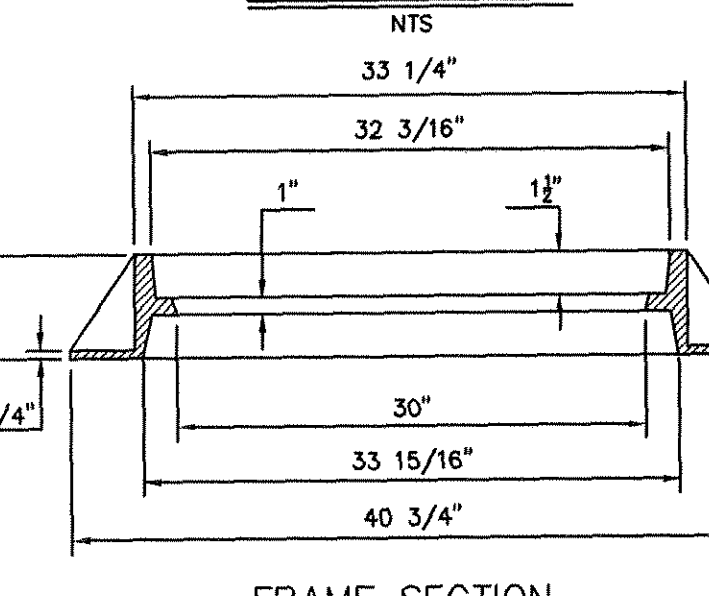
- NOTES:**
- TYP. MINIMUM WEIGHT = COVER 175 LBS
 - = FRAME 170 LBS
 - = UNIT 345 LBS



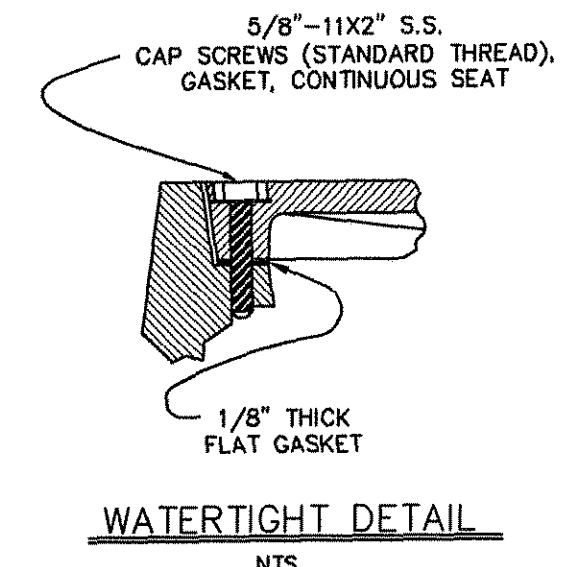
MACHINED BEARING SURFACE



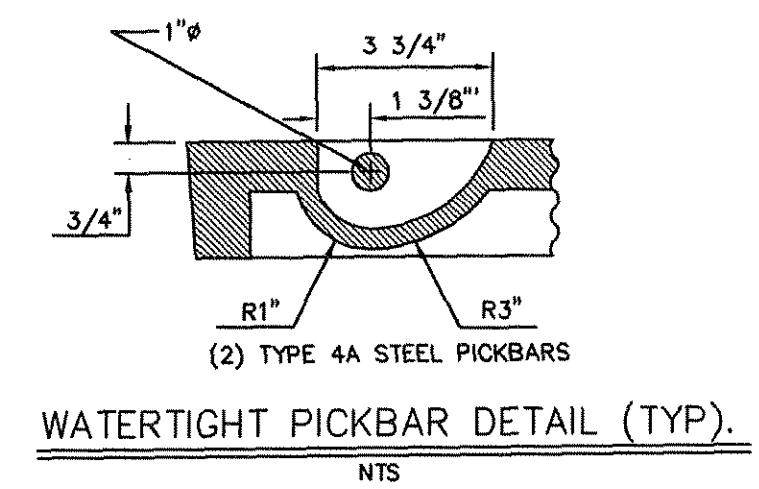
RING TOP VIEW



FRAME SECTION



WATERTIGHT DETAIL



WATERTIGHT PICKBAR DETAIL (TYP.)

STANDARD SANITARY RING & COVER (30" OPENING)

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING
102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

SEAL: 8/1/06
STATE OF TEXAS
MIKE W. FRIEGEL
83017
LICENSED PROFESSIONAL ENGINEER

SHEET TITLE: **SITE DETAILS**

DRAWN BY: GEJ DATE: JUNE 2006 SCALE: AS SHOWN FB-LB: ***** REF-L/B: ***** CLIENT: PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties
22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
2	08/10/06		CITY COMMENTS	GEJ
1	06/22/06		REVISED COMMUNITY BLDG.	GEJ

SHEET
C-13 of C-15
I.D. 1795
DWG. 06-201-D

WATERCREST PLACE - SITE DETAILS

CITY OF KILLEEN WATER NOTES:

- ALL WORK DETAILED ON THESE PLANS SHALL BE CONSTRUCTED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION), INCLUDING ALL AMENDMENTS ADOPTED THERETO PRIOR TO THE DATE OF APPROVAL OF THESE PLANS AND IN ACCORDANCE WITH THE STANDARD DRAWINGS OF THE CITY OF KILLEEN, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL COMPLY WITH ALL CURRENT O.S.H.A. REQUIREMENTS REGARDING TRENCH SAFETY AND SHORING.
- CONTRACTOR SHALL COMPLY WITH ALL T.C.E.Q. RULES FOR UTILITY LOCATIONS IN PARAGRAPH 317.13 OF DESIGN CRITERIA FOR SEWERAGE SYSTEMS.
- ALL WATER MAINS TO BE C-900 P.V.C. PIPE UNLESS OTHERWISE NOTED.
- ALL MATERIALS USED IN WATER SYSTEM TO BE APPROVED BY THE D.P.W.
- CONTRACTOR SHALL INSTALL SLEEVES FOR ALL LONG WATER SERVICES. SLEEVES SHALL BE 4" P.V.C. AND SHALL BE EXTENDED TO 2 FT. BEHIND BACK OF CURB.
- UTILITIES HAVE BEEN LOCATED BY RECORD DRAWINGS AND VISIBLE APPURTENANCES. CONTRACTOR TO VERIFY LOCATION PRIOR TO CONSTRUCTION.
- ALL WATER MAINS TO HAVE A MINIMUM OF 42" OF COVER BELOW FINISHED GRADE.

CITY OF KILLEEN SEWER NOTES:

- ALL WORK DETAILED ON THESE PLANS SHALL BE CONSTRUCTED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION), INCLUDING ALL AMENDMENTS ADOPTED THERETO PRIOR TO THE DATE OF APPROVAL OF THESE PLANS AND IN ACCORDANCE WITH THE STANDARD DRAWINGS OF THE CITY OF KILLEEN, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL COMPLY WITH ALL CURRENT O.S.H.A. REQUIREMENTS REGARDING TRENCH SAFETY AND SHORING.
- CONTRACTOR SHALL COMPLY WITH ALL T.C.E.Q. RULES FOR UTILITY LOCATIONS IN PARAGRAPH 317.13 OF DESIGN CRITERIA FOR SEWERAGE SYSTEMS.
- ALL SEWER MAINS TO BE S.D.R.-26 P.V.C. PIPE UNLESS OTHERWISE NOTED.
- ALL MATERIALS USED IN SEWER SYSTEM TO BE APPROVED BY THE D.P.W.
- DOUBLE SEWER SERVICES SHALL CONSIST OF TWO SEPARATE 4" P.V.C. LINES LOCATED IN THE SAME TRENCH.
- UTILITIES HAVE BEEN LOCATED BY RECORD DRAWINGS AND VISIBLE APPURTENANCES. CONTRACTORS TO VERIFY LOCATION PRIOR TO CONSTRUCTION.

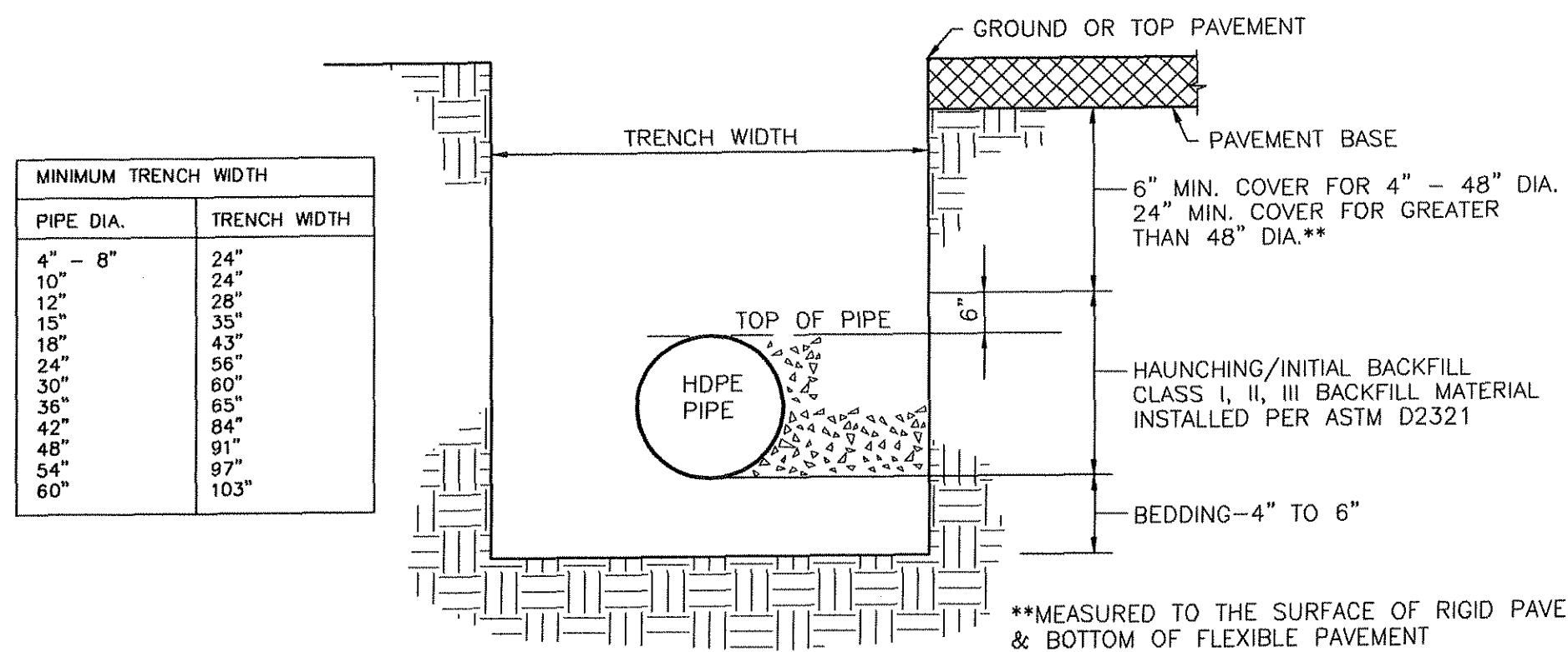
RIPRAP NOTE:

Riprap stone shall be durable, natural stone and have a minimum bulk specific gravity of 2.40 when tested in accordance with Test Method Tex-403-A. The maximum loss of 18% with magnesium sulfate and 12% with sodium sulfate when subjected to 5 cycles in accordance with Test Method Tex-411-A. When testing riprap stones for soundness, crushing may be required. The soundness test will be performed on the particles passing the 2-1/2" sieve and retained on the No. 4 sieve.

A verification test for the size of finished riprap in place shall be performed by the Contractor at a location determined by the Engineer. The test area shall be a square, each side of which will measure a minimum of three times the specified thickness of riprap. Additional tests may be required by the Engineer for each 5000 square yards of surface area of riprap or fraction thereof. Placement of subsequent 5000 square yard riprap areas shall not begin until previously placed stone has been approved by the Engineer.

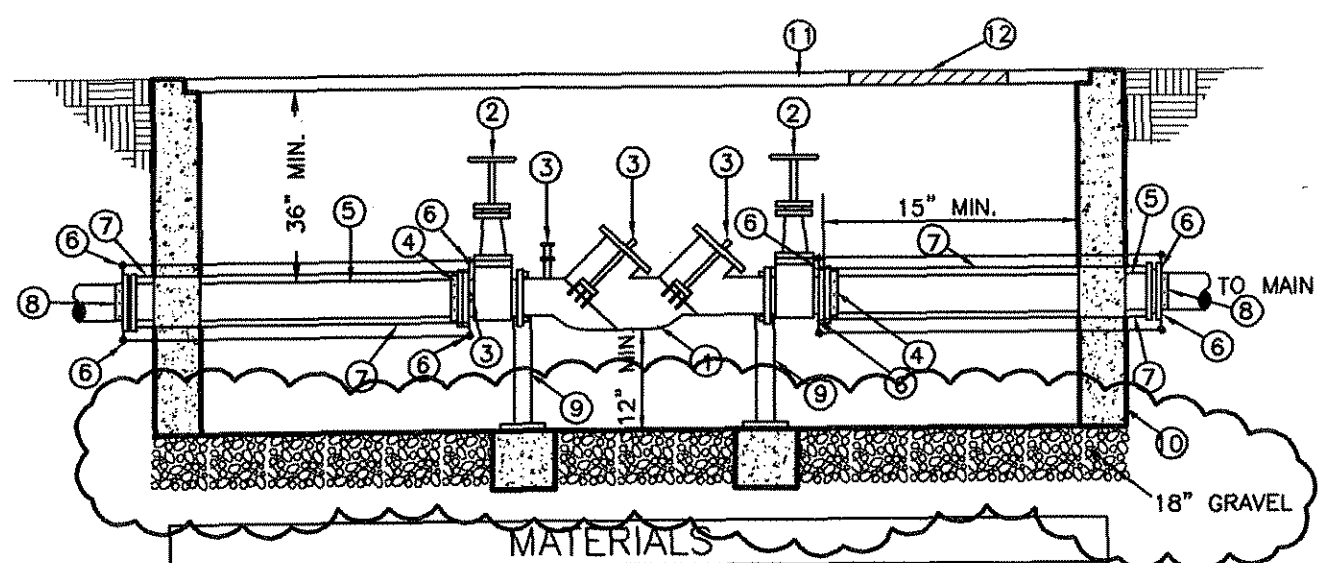
All stones except spalls shall weigh between 50 and 250 pounds each, and at least 50% of the stones shall weigh more than 100 pounds each.

The stones shall be placed in a single layer with close joints. The stones shall be placed so that the greater portion of their weight is carried by the earth and not by the adjacent stones. The upright axes of the stones shall make an angle of approximately 90 degrees with the embankment slope. The courses shall be placed from the bottom of the embankment upward, the larger stones being placed in the lower corners. Open joints shall be filled with spalls. Stones of greater dimensions than the required riprap thickness shall be embedded in the embankment to present a uniform finished top surface such that the variation between tops of adjacent stones shall not exceed six inches. Stones that project more than allowable amount in the finished work shall be replaced, embedded deeper, or chipped.



REFERENCE ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS."

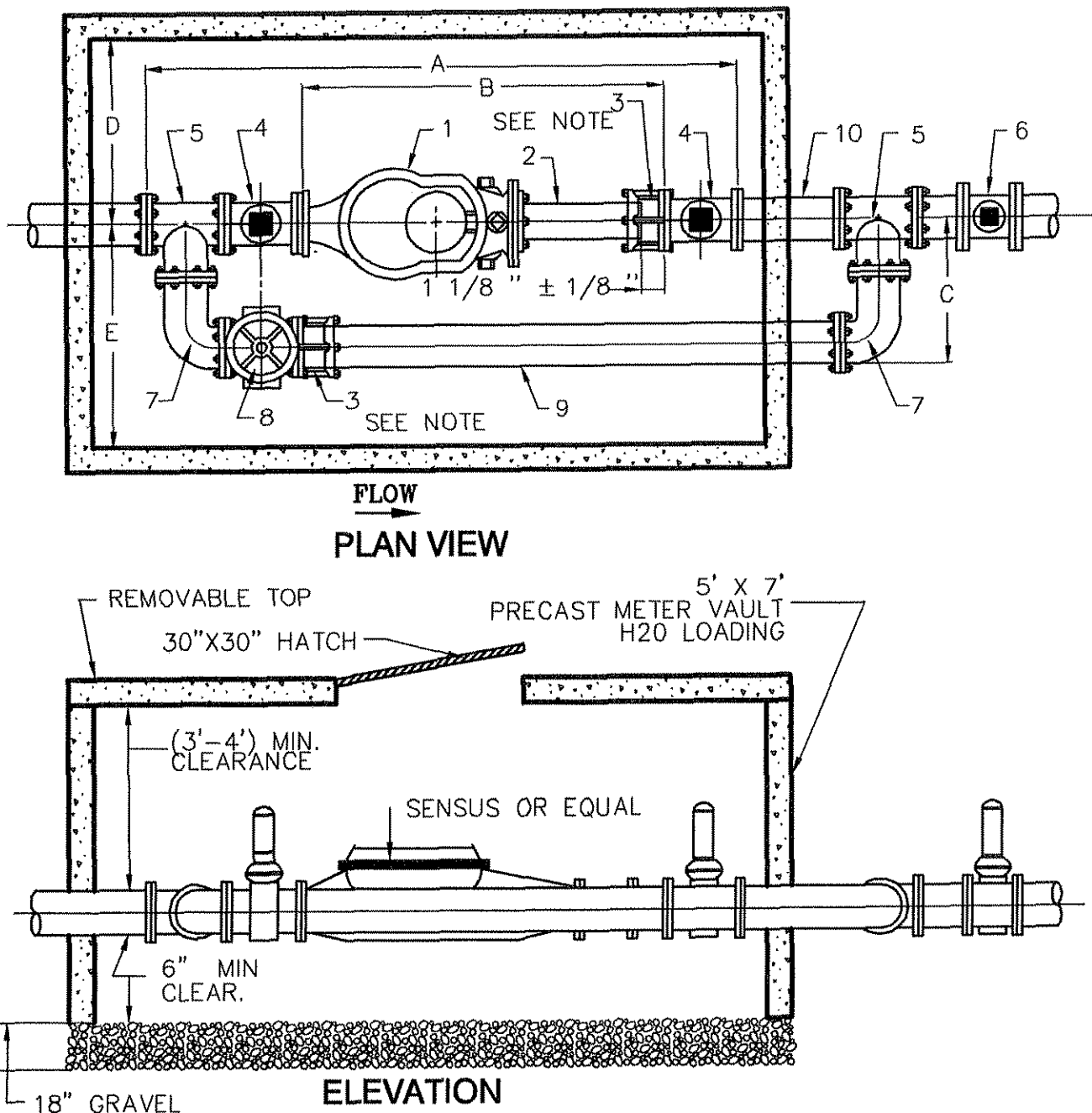
HDPE TRENCH DETAIL



NOTE:

- FOR FINAL APPROVAL, ASSEMBLY MUST BE CENTERED IN ENCLOSURE (IF APPLICABLE), UNDER NO CONDITION WILL ANY CONNECTION BE ALLOWED BETWEEN THE SERVICE METER AND A BACKFLOW PREVENTER USED FOR SYSTEM CONTAINMENT. BACKFLOW PREVENTER SHALL ALWAYS BE INSTALLED DOWNSTREAM OF METER.
- IF A PRESSURE MONITOR IS TO BE INSTALLED, ADD A TEE, VALVE, FITTINGS, AND MOUNT ON SUPPLY SIDE PRIOR TO BACKFLOW PREVENTION DEVICE; UNDER NO CIRCUMSTANCE, SHALL TEST PORTS BE MODIFIED OR UTILIZED FOR THIS OR OTHER APPLICATION, OTHER THAN BACKFLOW DEVICE TESTING.

BACKFLOW PREVENTOR VAULT DETAIL (6" SIZE)



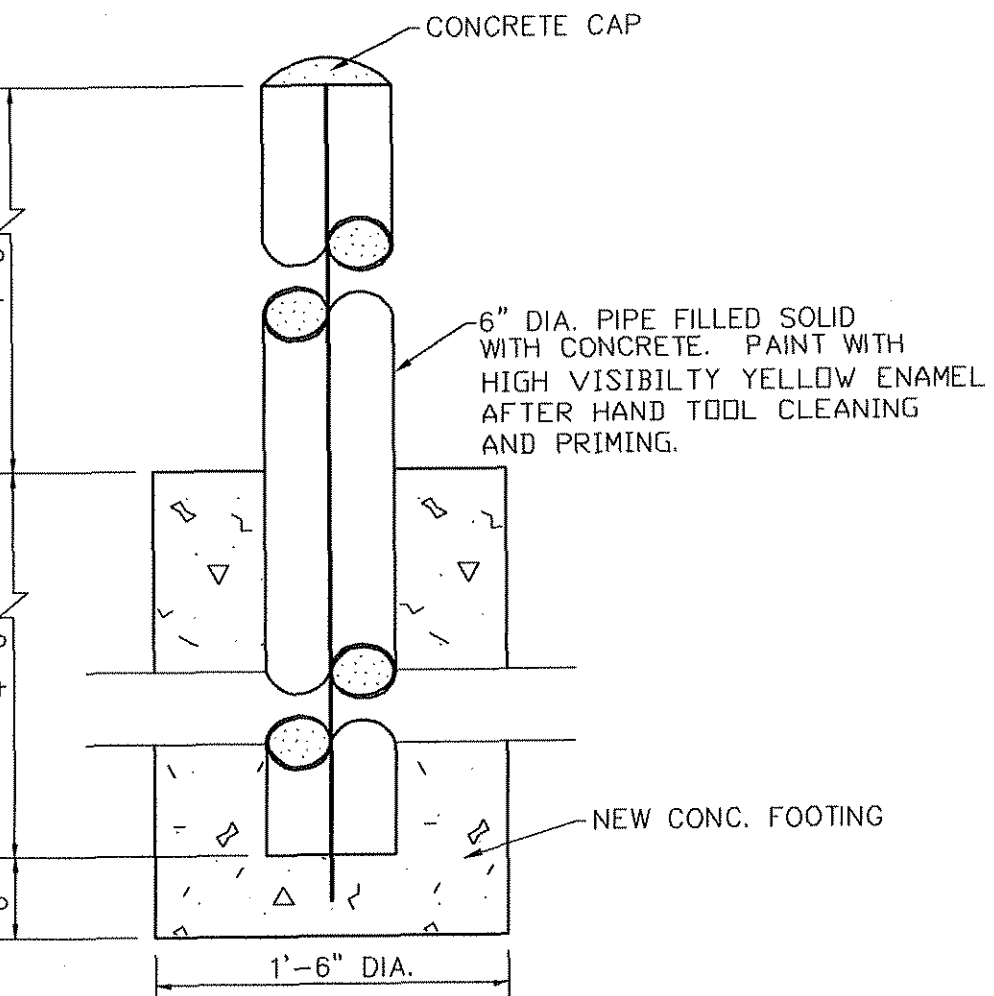
No.	NAME	LENGTH
A	OVERALL LENGTH	78 3/4"
B	METER + NIPPLE + FCA	41 1/2"
C	CENTER OF MAINLINE TO OUTSIDE OF BYPASS	17 1/2"
D	CENTERLINE OF MAINLINE TO INSIDE OF VAULT	30"
E	CENTERLINE OF MAINLINE TO INSIDE OF VAULT	30"

No.	NAME	LENGTH
1	6" METER & STRAINER	28"
2	6" FLANGED x PLAIN END	12"
3	6" FLANGED COUPLING ADAPTER	5"
4	COK 6" GATE VALVE SQUARE NUT	10 1/2"
5	8"x8"x6" FLANGED TEE	5"
6	PROPERTY OWNER'S 6" GATE VALVE SQUARE NUT	10 1/2"
7	6" FLANGED ELBOW 90°	12"
8	6" BYPASS GATE VALVE WITH HANDWHEEL	10 1/2"
9	6" BYPASS DUCTILE IRON PIPE	10 1/2"
10	6" FLANGED SPOOL	12"

*DIMENSIONS - SUBJECT TO CHANGE, CHECK WITH INSPECTOR

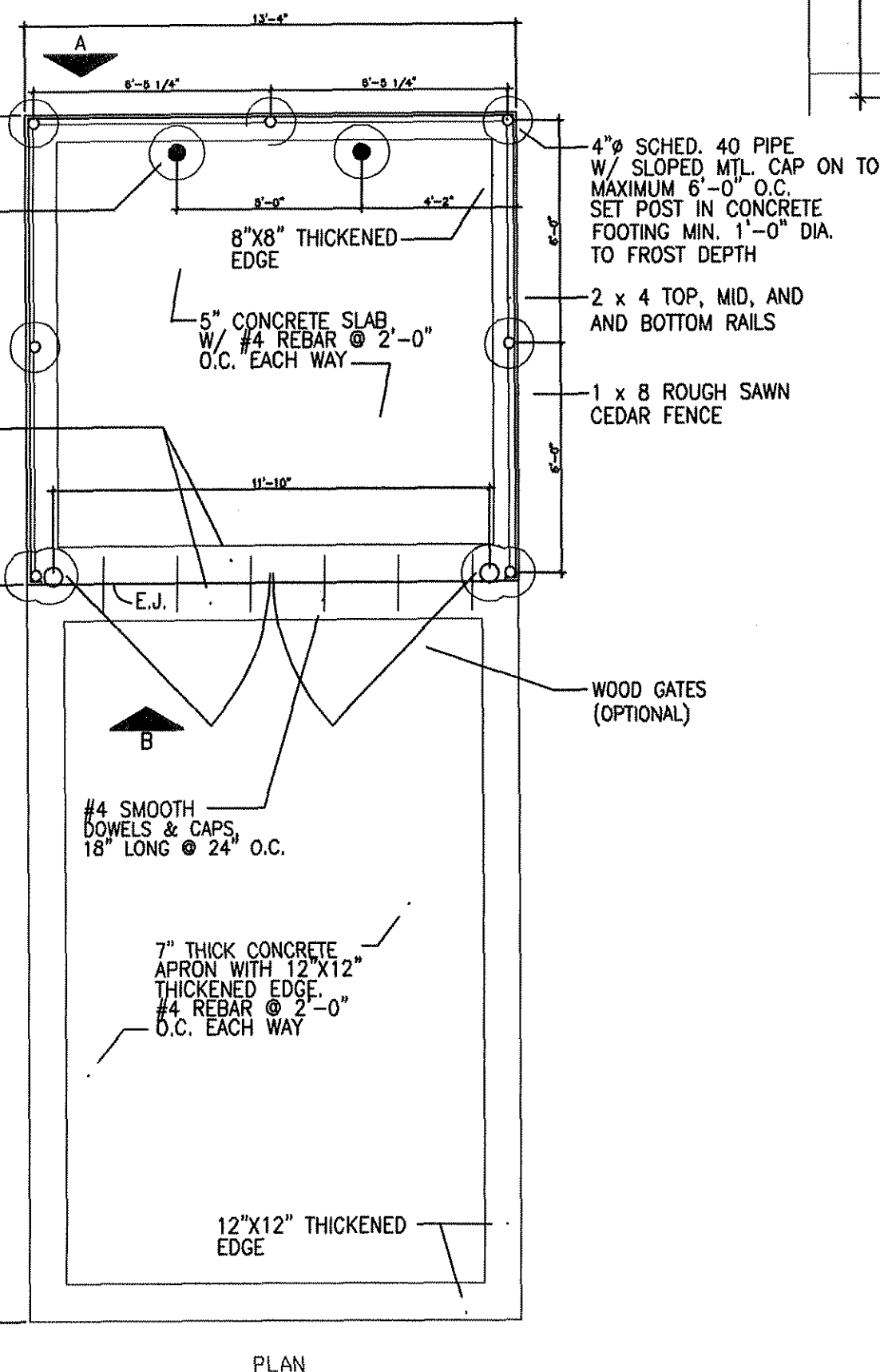
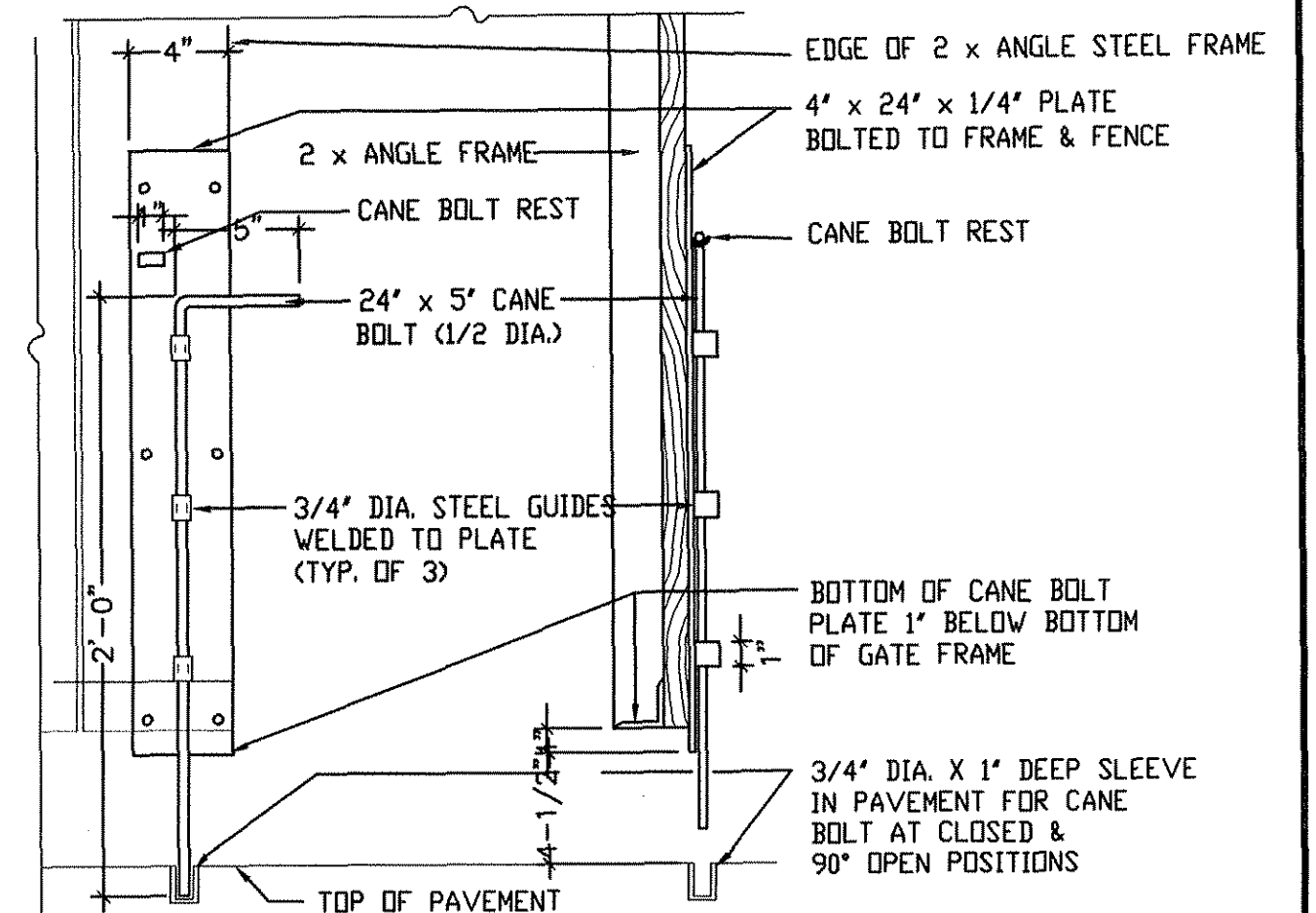
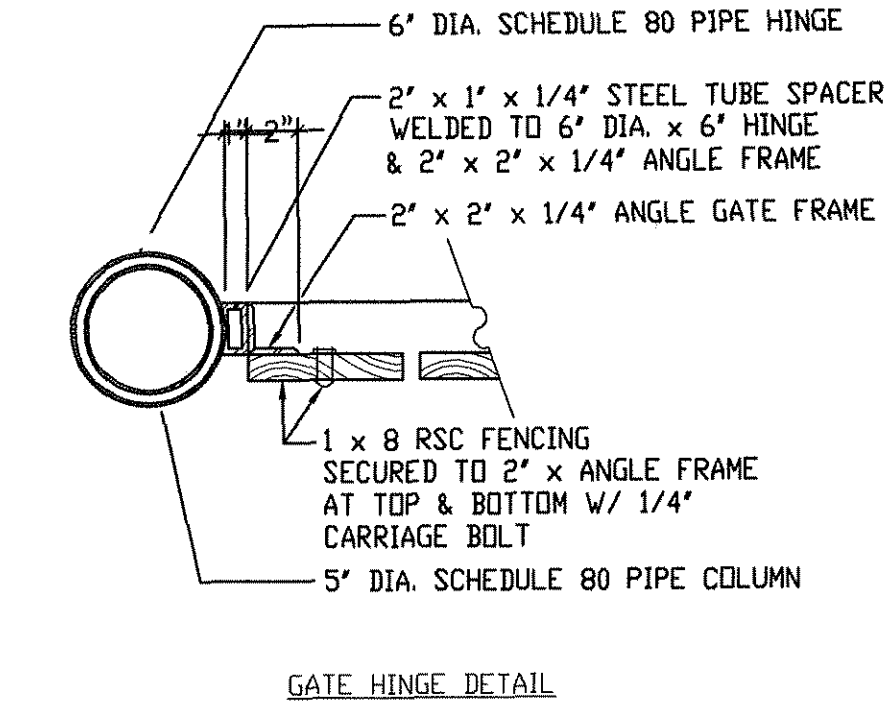
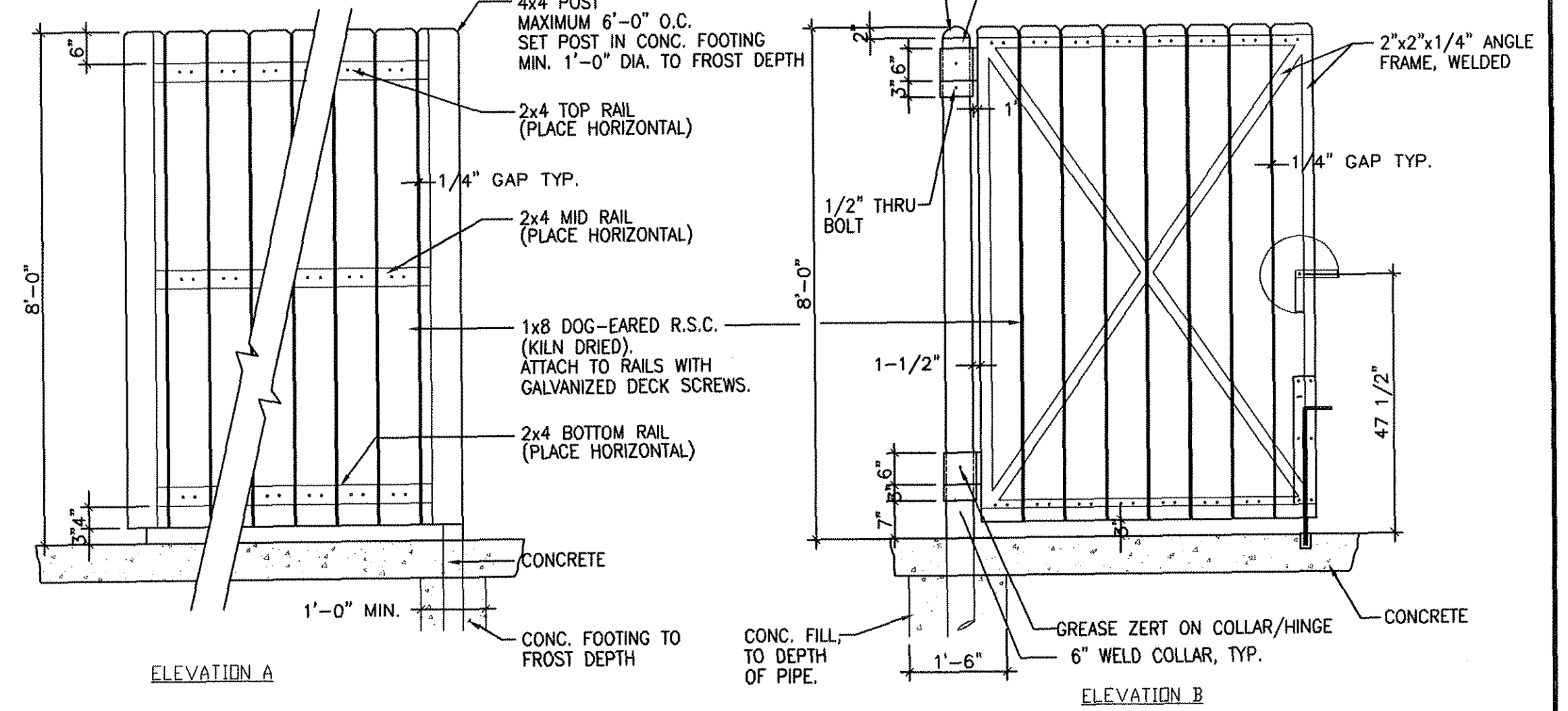
METER VAULT DETAIL (6" SIZE)

NTS



PIPE BOLLARD DETAIL

NOTE: APPLY 2 COATS OF A LOCALLY AVAILABLE "CLEAR SEALER" TO ALL R.S.C. FENCING AND/OR GATES AS APPLICABLE.

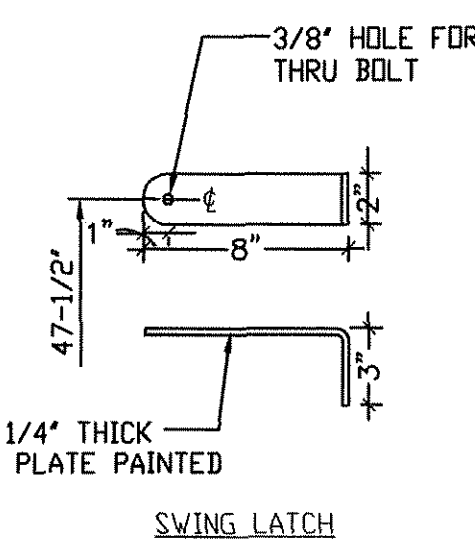


DUMPSTAD PAD W/ENCLOSURE

NTS

- NOTES:**
- MOUNT 48" ABOVE TOP OF PAVEMENT.
 - ALIGN STOP PLATE WITH SWING LATCH.

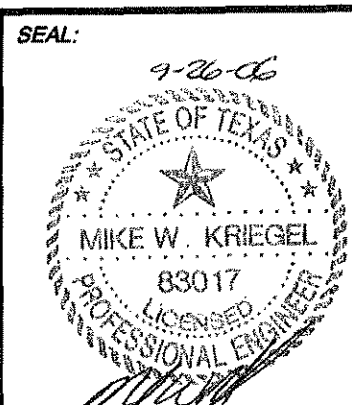
STOP PLATE (SECTION VIEW)



WATERCREST PLACE - SITE DETAILS

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141



SHEET TITLE:

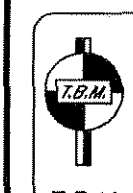
SITE DETAILS

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT-AREA:
GEJ	05/11/06	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place



22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS



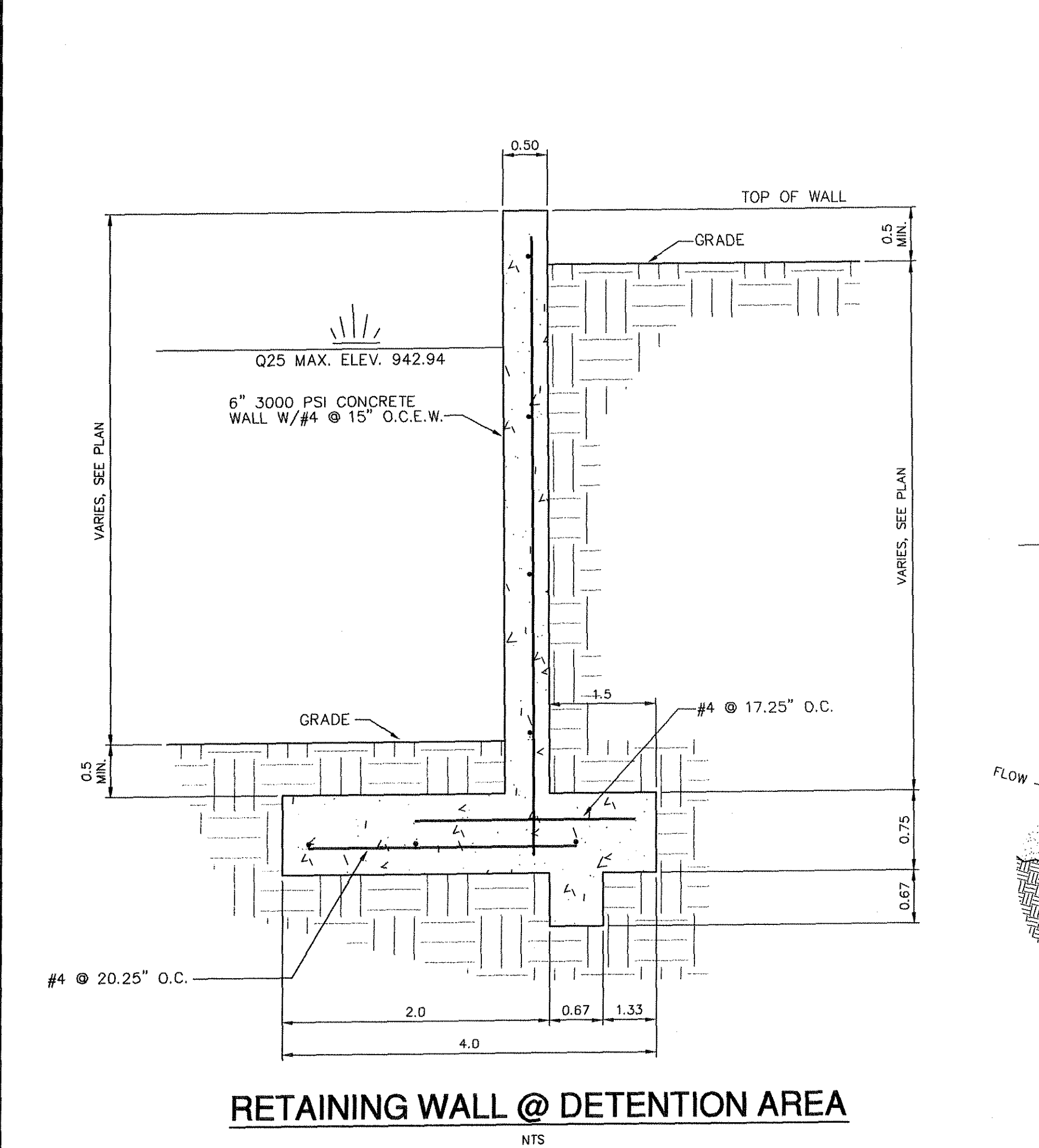
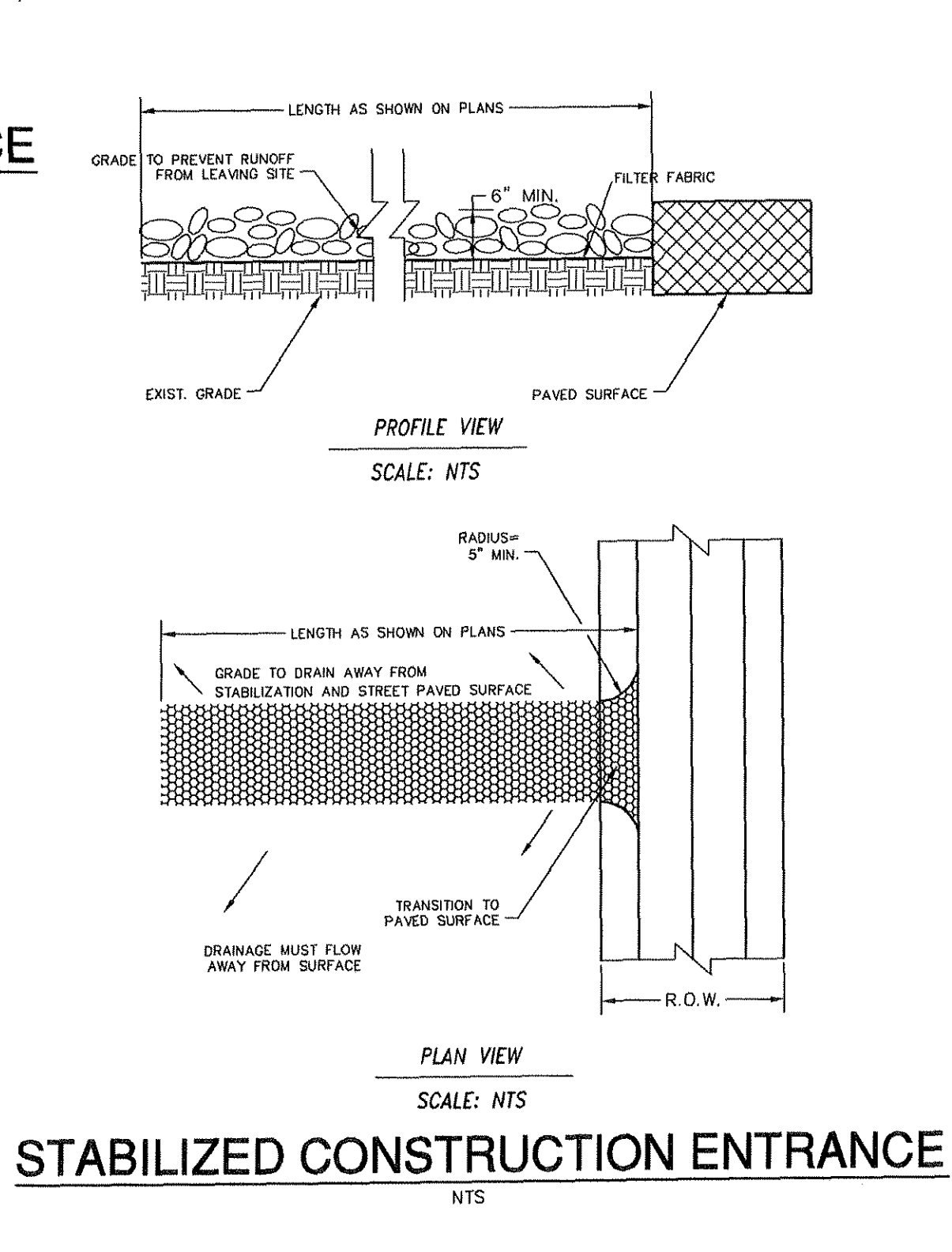
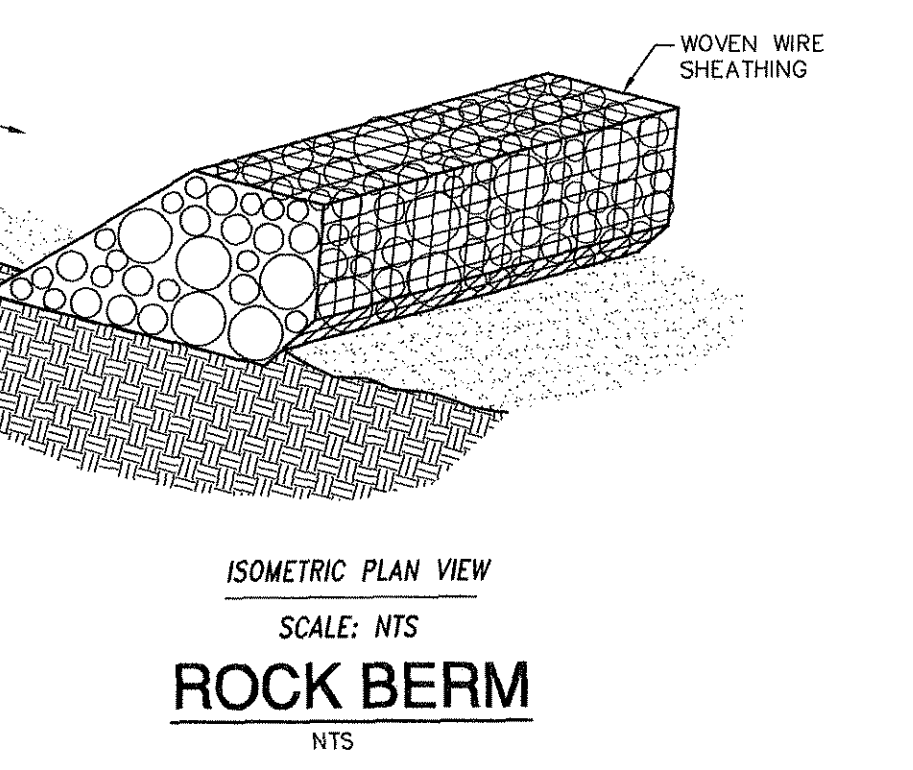
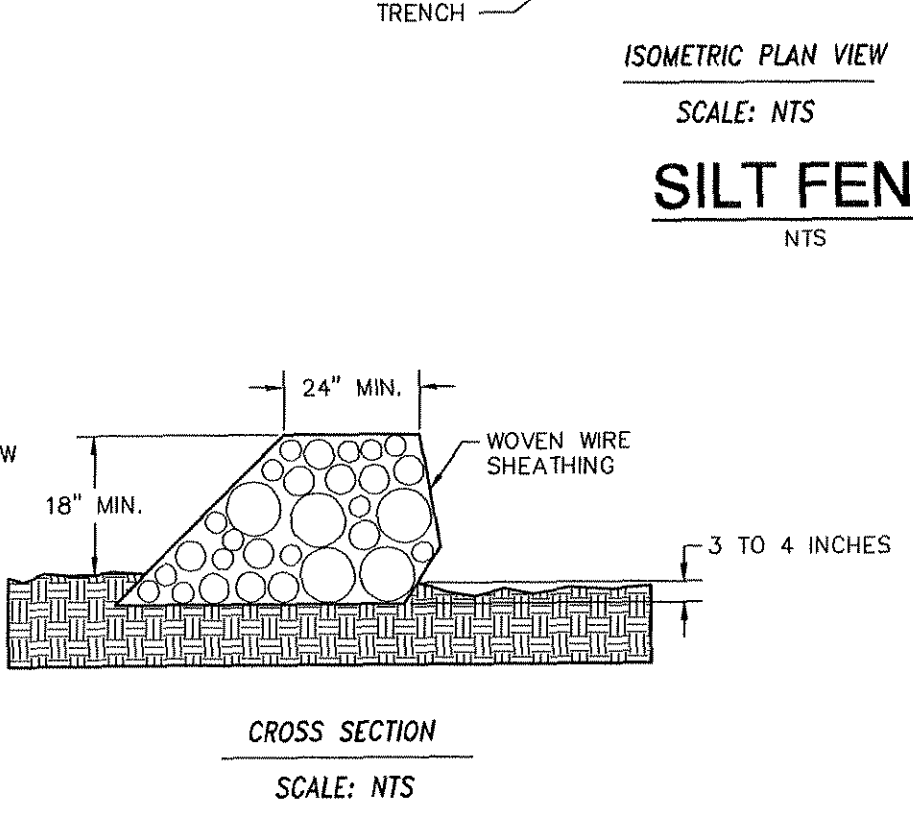
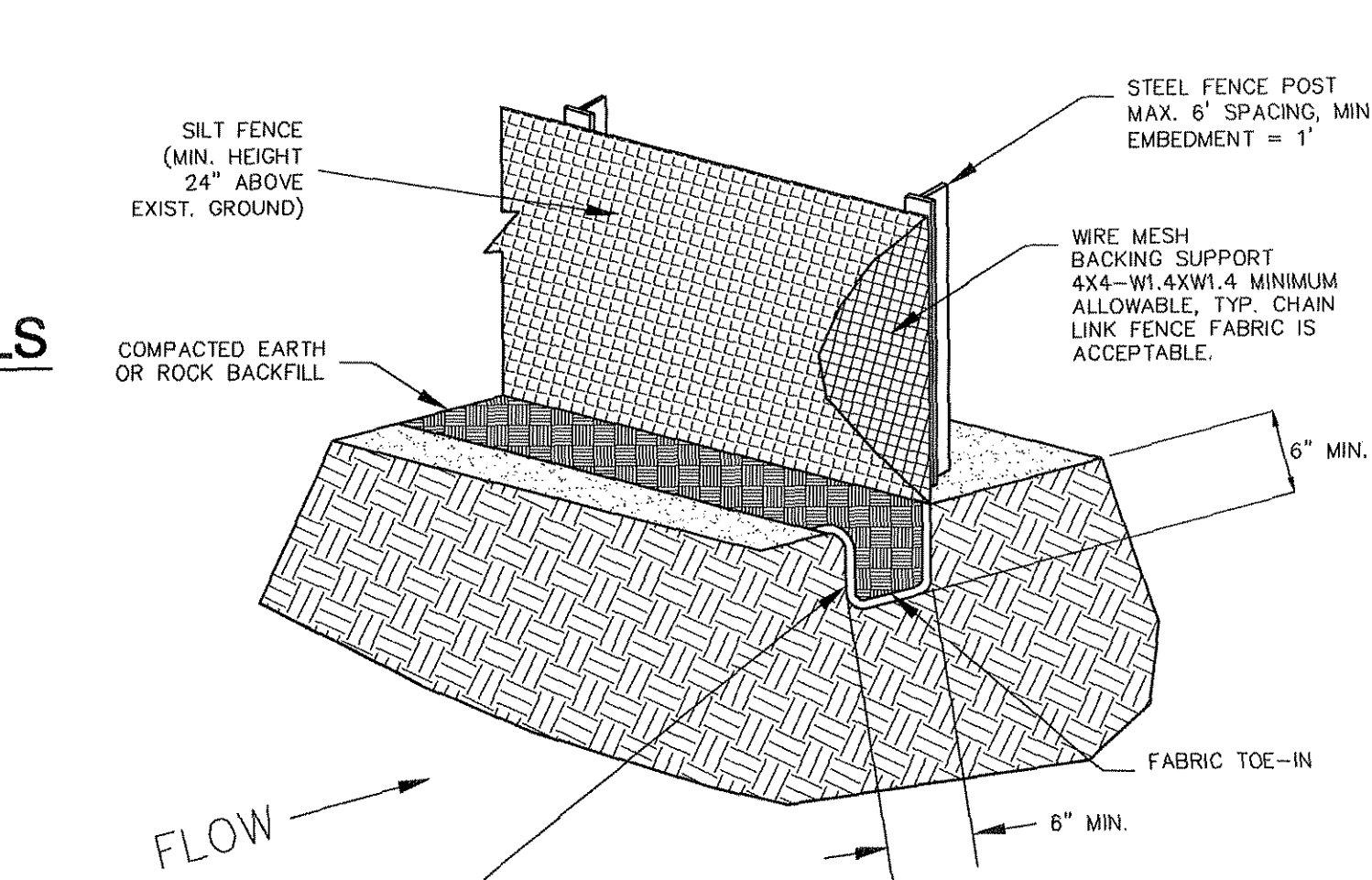
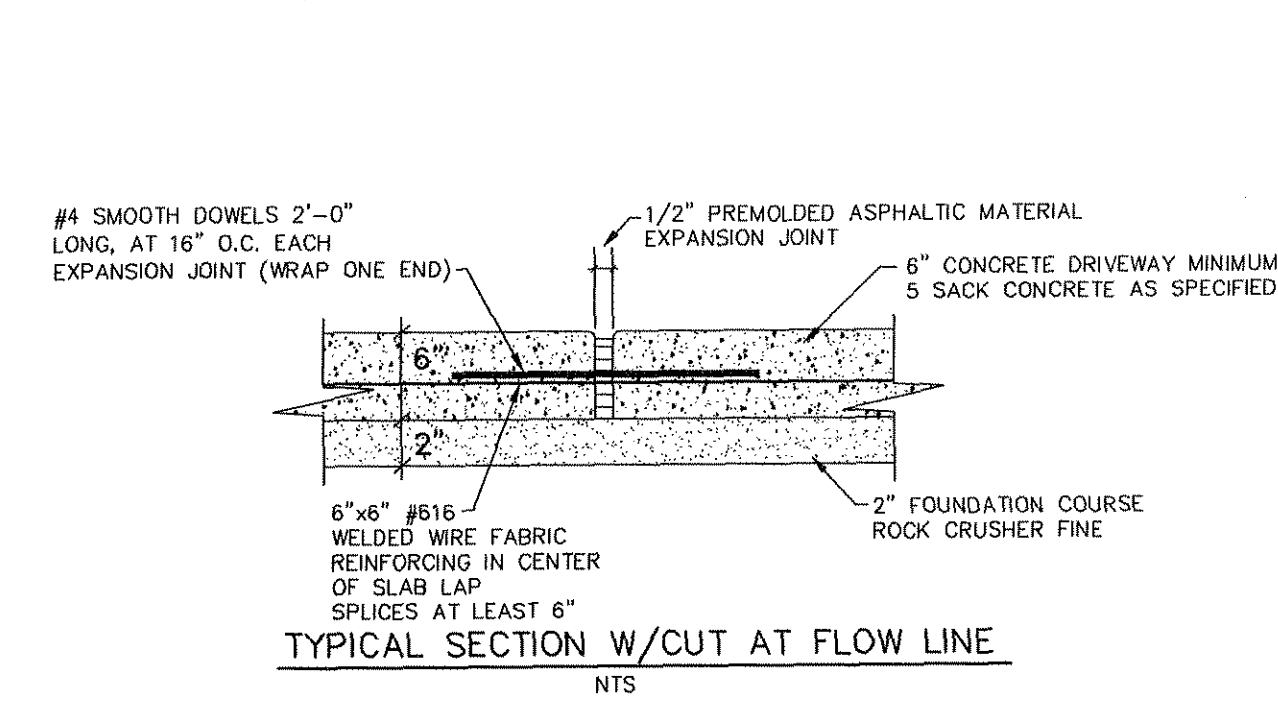
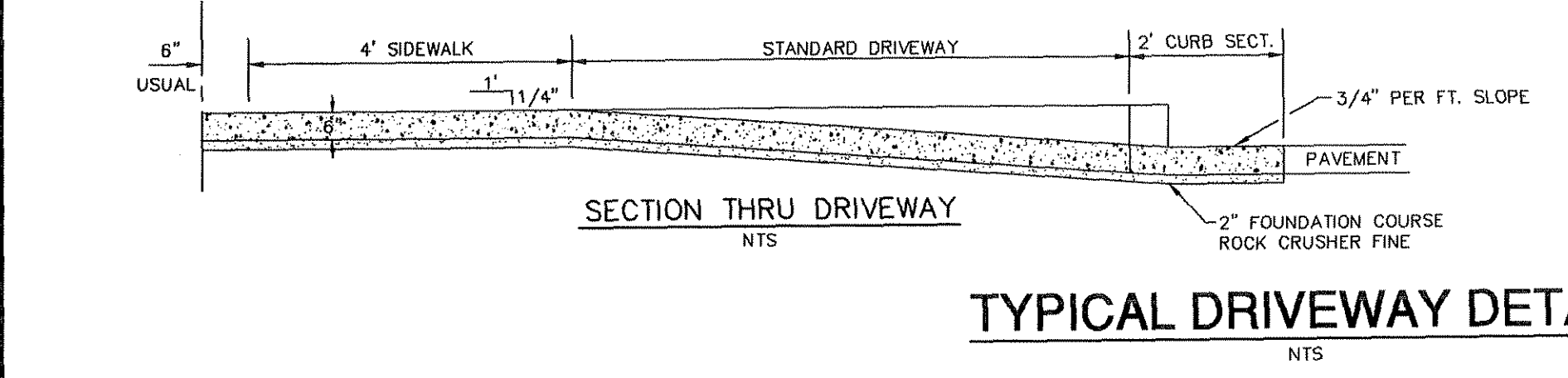
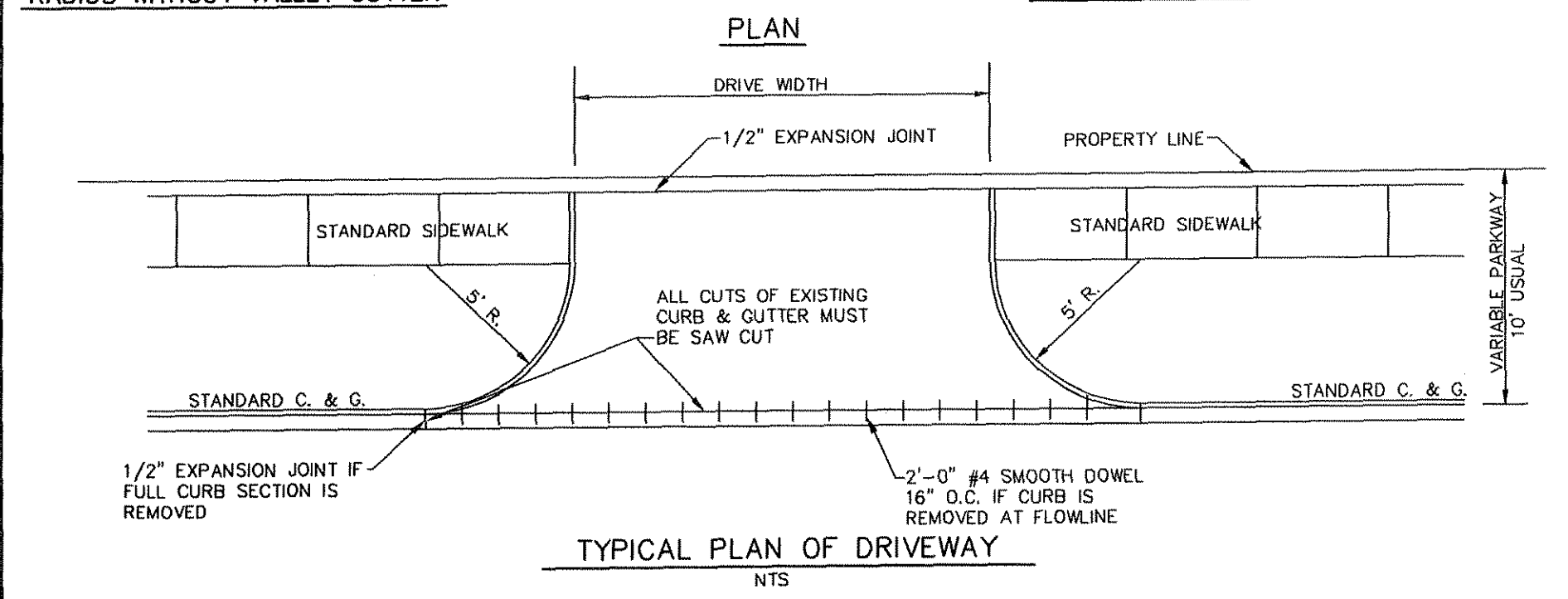
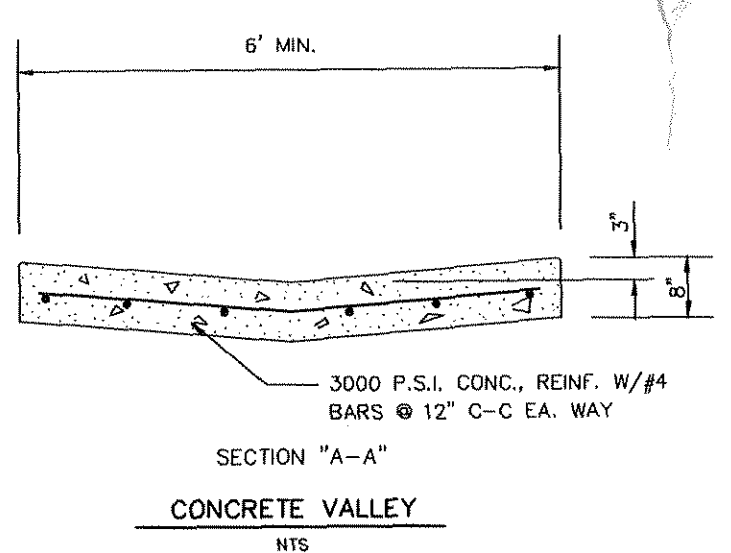
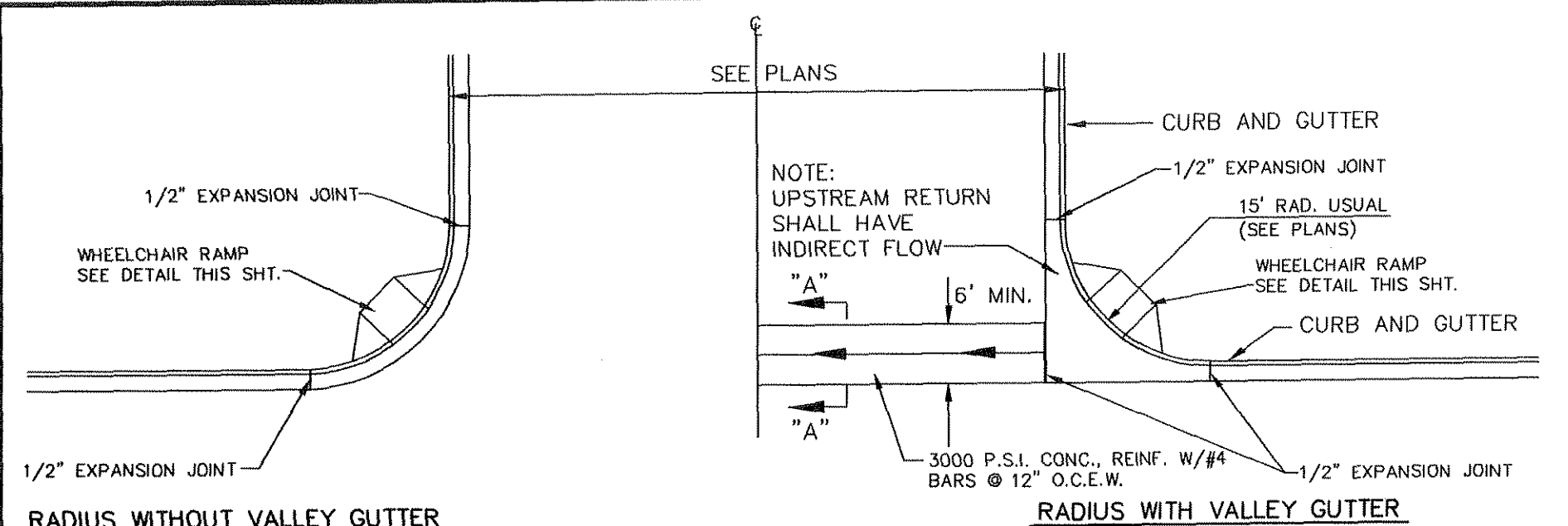
T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	REMARKS	BY
3	09/26/06		CITY COMMENTS	GEJ
2	08/10/06		CITY COMMENTS	GEJ
1	06/22/06		REVISED COMMUNITY BLDG.	GEJ

SHEET C-14 of C-15

I.D. 1795

DWG. 06-201-D



Typical Reinforced Water Wall Section
Standard Unit - Near Vertical Seaback

Wall Section with Pipe in Reinforced Zone
Standard Unit - Near Vertical Seaback

Typical Pipe Outlet Detail
Standard Unit - Near Vertical Seaback

Typical Pipe Outlet Section
Standard Unit - Near Vertical Seaback

Wall Plan at Pier / Manhole
Compact Unit

Wall Section at Pier / Manhole
Compact Unit - Near Vertical Seaback

Fence Plan Detail
Fence Section Detail
Compact Unit - Near Vertical Seaback

Fence Plan Detail
Fence Section Detail
Compact Unit - Near Vertical Seaback

Typical Guardrail Detail
Standard Unit - Near Vertical Seaback

Drainage Swale Detail
Compact Unit - Near Vertical Seaback

Connection Details
Compact Unit - Seams

Parapet End Detail
Near Vertical Seaback

Copyright 2008 Keystone Retaining Wall Systems

DESIGN: THE STABILITY OF THE RETAINING WALL SYSTEMS IS THE RESPONSIBILITY OF THE OWNER. THE DESIGN IS BASED ON THE ASSUMPTIONS AND MATERIALS CONTAINED HEREIN. THE USER SHALL BE RESPONSIBLE FOR THE QUALITY OF THE MATERIALS AND THE QUALITY OF THE CONSTRUCTION. THE USER SHALL BE RESPONSIBLE FOR THE QUALITY OF THE CONSTRUCTION. THE USER SHALL BE RESPONSIBLE FOR THE QUALITY OF THE CONSTRUCTION.

No.	Date	Revision

CONCEPTUAL DETAILS

Keystone Retaining Wall Systems
Typical Wall Details

KEYSTONE RETAINING WALL DETAILS
REFER TO MANUFACTURER FOR SPECIFIC DETAILS/PLANS

WHEN ARE INLINE DRAINS USED?

THE INLINE DRAIN CAN BE USED TO ENTER AN EXISTING LINE BY USE OF A RISER AND A TEE

THE INLINE DRAIN CAN BE USED AT THE BEGINNING OF A DRAIN LINE

TYPICAL INSTALLATIONS

TYPICAL INSTALLATION OF NYLOPLAST DRAIN BASIN AND INLINE DRAIN

WHEN ARE DRAIN BASINS USED?

1. CHANGE ELEVATION

2. CHANGE DIAMETER

3. CHANGE PIPE

4. CHANGE DIRECTION

WATER TIGHT ADAPTERS AVAILABLE FOR ALL PLASTIC PIPING SYSTEMS

INLET ADAPTERS CAN BE PUT ON ANY ANGLE

AVAILABLE IN SIZES 8" THROUGH 30"
ADAPT TO PIPE SIZES 4" THROUGH 30"

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE PROVISION OF THIS PRINT DOES NOT CONSTITUTE AN ENDORSEMENT OF THE USE OF THE PRODUCT OR TECHNICAL INFORMATION BOUND HEREIN. THE USER SHALL BE RESPONSIBLE FOR THE QUALITY OF THE CONSTRUCTION. THE USER SHALL BE RESPONSIBLE FOR THE QUALITY OF THE CONSTRUCTION. THE USER SHALL BE RESPONSIBLE FOR THE QUALITY OF THE CONSTRUCTION.

DATE	BY	PROJECT NO./NAME	TITLE
08/10/06	GEJ	CITY COMMENTS	GEJ
06/22/06	GEJ	REVISED COMMUNITY BLDG.	GEJ

NYLOPLAST
3100 VERONA AVE
BENTON, TX 76804
PH: (781) 370-3440
FAX: (781) 370-3440
www.nyloplast.com

MITCHELL & ASSOCIATES, INC.
ENGINEERING & SURVEYING

102 N. COLLEGE STREET
KILLEEN, TEXAS 76541
PHONE: (254) 634-5541
FAX: (254) 634-2141

STATE OF TEXAS
MIKE W. KRIEGLER
83017
PROFESSIONAL ENGINEER

SHEET TITLE:
SITE DETAILS

DRAWN BY:	DATE:	SCALE:	FB-LB:	REF-L/B:	CLIENT-AREA:
GEJ	05/11/06	AS SHOWN	*****	*****	PLACE PROPERTIES - MILITARY

WaterCrest Place
Place Properties

22.221 ACRES, PART OF THE THOMAS ROBINETT SURVEY, ABSTRACT NO. 686
KILLEEN, BELL COUNTY, TEXAS

T.B.M. - BRASS MONUMENT S.E. CORNER OF S.H. 201 & WATERCREST RD. ELEV. 974.36

No.	DATE	REVISIONS	BY
2	08/10/06	CITY COMMENTS	GEJ
1	06/22/06	REVISED COMMUNITY BLDG.	GEJ

SHEET C-15 of C-15

I.D. 1795

DWG. 06-201-D

WATERCREST PLACE - SITE DETAILS