

ENVIRONMENTAL PROTECTION SPECIFICATIONS

1. PURPOSE: THE OBJECTIVE OF THIS ENVIRONMENTAL PROTECTION PLAN (EPP) IS TO ESTABLISH PROCEDURES FOR THE CONTRACTOR TO FOLLOW DURING THE CONSTRUCTION OF THE GUAM COMMUNITY COLLEGE (GCC) DNA FORENSIC LABORATORY, LOCATED WITHIN GCC CAMPUS, MUNICIPALITY OF MANGILAO. THE EPP WILL ASSURE COMPLIANCE WITH LAWS AND REGULATIONS OF THE FEDERAL ENVIRONMENTAL PROTECTION AGENCY (EPA) AND GUAM ENVIRONMENTAL PROTECTION AGENCY (GEPA).

2. PROJECT LOCATION: THE PROJECT IS LOCATED, LOT 5376-NEW-8 AT GCC CAMPUS.

3. PROJECT INFORMATION: THIS PROJECT IS FOR THE CONSTRUCTION OF THE FORENSIC LABORATORY BUILDING. IT IS ANTICIPATED THAT MAJORITY OF THE CONSTRUCTION WORKS WILL BE DONE USING HEAVY EQUIPMENT. THE LIMITS OF THE CONSTRUCTION ARE INDICATED IN THE DRAWINGS.

4. SITE AND DRAINAGE FEATURES: PRESENTLY, THE SITE IS HEAVILY COVERED WITH WITH VEGETATION. THE SITE SLOPES SOUTHERLY AT AN AVERAGE OF ABOUT 15.0%. THE HIGHEST POINT OF THE SITE IS LOCATED AT THE SOUTHEAST BOUNDARY AT ELEVATION 345 AND THE LOWEST POINT IS LOCATED ON THE NORTHWEST BOUNDARY AT ELEVATION 290.00.

THE EXISTING FORENSIC BUILDING HAS EXISTING DRAINAGE SYSTEM COMPRISING OF DRAINAGE INLETS/CATCH BASINS THAT COLLECT SURFACE RUNOFFS AND UNDERGROUND DRAINAGE PIPES THAT CONVEY RUNOFFS TO THE PONDING BASIN LOCATED NEAR THE SOUTHWEST PROPERTY CORNER OF THE CAMPUS.

5. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES: THE GUAM SOIL EROSION AND SEDIMENTATION CONTROL MANUAL PUBLISHED BY GEPA IN 1986 IS HEREBY ADOPTED AS REFERENCE SPECIFICATION FOR THE IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROL ON THIS PROJECT.

THE FOLLOWING MEASURES AND PROCEDURES AS DERIVED FROM THE MANUAL WILL BE EMPLOYED DURING CONSTRUCTION TO CONTROL EROSION AND PREVENT OCCURRENCE OF DRAINAGE AND SEDIMENTATION PROBLEMS:

1. GRADING WILL BE ACCOMPLISHED ONLY DURING SUITABLE WEATHER CONDITIONS. NO EARTH MOVING OR FILLING OPERATIONS WILL BE UNDERTAKEN DURING INCLEMENT WEATHER CONDITIONS.

2. TEMPORARY EARTH BERMS OR SILT FENCES WILL BE INSTALLED, AS NECESSARY, TO CONTAIN RUNOFF GENERATED DURING THE CLEARING AND GRADING WORK.

3. SHOULD EROSION OF EXPOSED CLEARED AREAS BE OBSERVED, THESE AREAS WILL BE PROVIDED WITH JUTE NETTING, MULCHING OR PLACEMENT OF LEAFY VEGETATION SUCH AS PALM FRONDS OR OTHER ACCEPTABLE METHODS TO ARREST THE EROSION PROCESS.

6. AIR POLLUTION: PARTICULATE (DUST) AND EXHAUST GASSES (HYDROCARBONS AND CARBON MONOXIDE) AREA NOT EXPECTED TO DEGRADE THE AIR QUALITY IN THE AREA DURING CONSTRUCTION.

7. SOLID WASTE: SOLID WASTE CONSIST OF TREE AND PLAN MATERIAL AND OTHER DISCARD SOIL MATERIALS RESULTING FROM LAND CLEARING AND GRUBBING ACTIVITIES. ALL VEGETATIVE AND SHRUBBERY DEBRIS SHALL MAY BE LEFT "ON-SITE" WITHIN THE LIMITS OF THE CONSTRUCTION AREA. THE DEBRIS SHALL BE PLACED SUCH THAT IT WILL NOT POSE HAZARD TO PERSONNEL. NO DEBRIS SHALL BE ALLOWED TO ENCROACH BEYOND THE LIMITS OF THE ACTIVE CONSTRUCTION AREA WITHIN THE PROPERTY.

8. SANITARY WASTE: SANITARY WASTE CONSIST OF DOMESTIC SANITARY SEWAGE AND GARBAGE SUCH AS REFUSE AND SCRAPS RESULTING FROM PREPARATION AND CONSUMPTION OF FOOD. GARBAGE MATERIAL SHALL BE STORED IN CLOSED CONTAINERS THAT CON NOT BE OPENED BY STRAY ANIMALS. SANITARY WASTES, IF ANY SHALL BE DISPOSED OF PROPERLY TO THE LANDFILL ON A REGULAR BASIS.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE PORTABLE TEMPORARY TOILET FACILITIES IN SUFFICIENT NUMBERS TO ACCOMMODATE ALL CONSTRUCTION PERSONNEL. THE PORTABLE TOILETS SHALL BE EMPTIED PERIODICALLY IN A MANNER ACCEPTABLE TO GWA, AND MAINTAINED AT ALL TIMES WITHOUT NUISANCE. UPON COMPLETION OF THE WORK, THEY SHALL BE REMOVED FROM THE PREMISES.

9. PEST CONTROL: THE CONTRACTOR IS REQUIRED TO DISCOURAGED BREEDING OR ATTRACTION OF PESTS ON THE JOB SITE. THERE SHALL BE NO OPEN CONTAINERS OF STAGNANT WATER, WHICH WILL ACT AS A BREEDING AREA FOR MOSQUITOES. FOOD OR OTHER ORGANIC MATTER SHALL NOT BE LEFT IN OPEN TO ATTRACT FLIES, RATS, OR STRAY ANIMALS.

10. PETROLEUM PRODUCTS: PRIMARILY CONSIST OF DIESEL AND GASOLINE FUELS, HYDRAULIC FLUID, LUBRICANTS, AND GREASE, WHICH ARE USED BY MACHINERY DURING CONSTRUCTION, THE CONTRACTOR SHALL NOT ALLOW ANY PETROLEUM PRODUCTS TO ENTER, BY ANY MEANS, NEAR THE SHORE OR GROUNDWATER.

THE CONTRACTOR SHALL USE THE FOLLOWING GUIDELINES TO INSURE THAT THERE IS NO POLLUTION CAUSED BY PETROLEUM PRODUCTS:

1. GASOLINE: NO FIXED STORAGE OF LARGE QUANTITIES. IF A TANKER IS USED, FUELING OF MACHINERY SHALL BE DONE IN A SAFE MANNER. CONTAINERS SHALL BE COVERED AT ALL TIMES AND SMOKING PRECAUTIONS SHALL BE STRICTLY FOLLOWED.

2. HYDRAULIC FLUID, DIESEL, LUBRICATING OIL, AND GREASE: ANY STORAGE OF THESE SUBSTANCES SHALL BE IN AN APPROVED AND APPROPRIATE STORAGE CONTAINERS. ANY ACCIDENTAL SPILLS SHALL BE IMMEDIATELY CLEANED UP. THE STORAGE AREA, IF ANY, SHALL BE SECURED BY FENCE OR OTHER SUITABLE DETERRENT.

3. OILY WASTE: ALL OILY WASTES SHALL BE STORED AND SEALED IN CONTAINERS AWAY FROM THE SHORELINE AND IN SECURED AREA. CONTAINERS OF USED OIL SHALL BE DISPOSED OF AT A LICENSED FACILITY IN ACCORDANCE WITH THE STANDARDS OF GEPA. OILY SOAKED SAND, OILY RAGS, OIL FILTERS, ETC. SHALL BE STORED IN SEALED CONTAINERS AND DISPOSED OF PROPERLY.

SURVEY NOTES:

1. HORIZONTAL AND VERTICAL CONTROL SURVEY WAS BASED FROM GGN-1189 LOCATED NEAR THE SOUTHWEST PROPERTY CORNER AND G.C. 151 (REBAR SET ON GROUND) AT THE SOUTH STUDENT PARKING AREA. THESE SURVEY REFERENCE POINTS HAVE THE FOLLOWING DATA:

GGN-1189	NAIL WITH DLM CAP
N 634111.0179'	N 634,100.9870'
E 348338.2186'	E 348,761.1707'
	EL=287.01'

2. VERTICAL DATUM IS MEAN SEA LEVEL (MSL).

3. CONTOURS WERE DEVELOPED FROM SPOT ELEVATIONS USING STANDARD GROUND TOPOGRAPHIC SURVEY METHODS AND GPS.

4. COORDINATES PROVIDED FOR BUILDING OR STRUCTURE CORNERS ARE BASED ON OUTSIDE FACE OF WALLS OR COLUMNS, WHICHEVER APPLY.

5. COORDINATES PROVIDED FOR CLEAN OUTS, CATCH BASIN, FIELD INLETS, HEADWALLS/ENDWALLS, ECT. ARE BASED ARE BASED ON CENTER POINT OF THE ITEM.

11. HAZARDOUS WASTES: IT IS UNLIKELY THAT LARGE QUANTITIES OF HAZARDOUS WASTE WILL BE GENERATED DURING CONSTRUCTION OF THIS PHASE OF THE PROJECT. IF THERE ARE ANY HAZARDOUS WASTES GENERATED, THEY SHALL BE DISPOSED OF OFF-SITE IN A MANNER CONSISTENT WITH GEPA REGULATIONS.

12. PUBLIC SAFETY: A SECURITY FENCE OR BARRIER SHALL BE INSTALLED AROUND THE PROJECT SITE OR ALONG THE LIMITS OF CONSTRUCTION. SIGN THAT READ "CONSTRUCTION AREA-KEEP OUT" WILL BE PLACED ON THE OUTSIDE FACE OF THE SECURITY FENCE OR BARRIER.

13. NOISE CONTROL: NOISE ASSOCIATED WITH THIS PROJECT IS NOT EXPECTED TO BE SIGNIFICANTLY HIGHER THAT THE EXISTING CONDITION.

14. NATURAL RESOURCES: THERE ARE NO KNOWN NATURAL RESOURCES WITHIN THE PROJECT SITE.

15. HISTORICAL AND ARCHAEOLOGICAL: THERE ARE NO KNOW ARCHAEOLOGICAL ITEMS WITHIN THE PROJECT SITE. HOWEVER, SHOULD ANY MATERIAL OF APPARENT ARCHAEOLOGICAL OR HISTORICAL SIGNIFICANCE IS FOUND, ALL WORK IN THE AREA OF FIND SHALL STOP. THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE HISTORIC RESOURCES OFFICE OF THE HISTORIC PRESERVATION OFFICE (HPO) IN THE GUAM DEPARTMENT OF PARKS AND RECREATION. THEIR TELEPHONE NUMBERS ARE 475-6290 OR 475-6291. IF A DISCOVERY IS MADE ON WEEKENDS, HOLIDAYS, OR AFTER REGULAR WORKING HOURS, THE HPO WILL BE NOTIFIED AS SOON AS POSSIBLE ON THE NEXT WORKING DAY AND WORK WILL NOT RESUME WITHOUT APPROVAL OF THE HPO.

16. TYPHOON CONTINGENCY PLAN: THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT UNNECESSARY ENVIRONMENTAL DAMAGE DOES NOT OCCUR DURING PERIODS OF EXTREME BAD WEATHER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY AND SAFETY OF THE CONSTRUCTION AREA WHEN WARNING OF WINDS OF GALE FORCE (34 KNOTS OR MORE) ARE ISSUED. SATISFACTORY DAY-TO-DAY CLEANUP OF THE JOB SITE IS ESSENTIAL IN ORDER TO BE PROPERLY PREPARED FOR INCLEMENT WEATHER CONDITIONS.

WHEN CONDITION OF READINESS (COR) 2 IS DECLARED, THE CONTRACTOR SHALL CEASE ROUTINE ACTIVITIES TO ALLOW MAXIMUM SECURING EFFORT. ANY FUEL DRUMS OR OTHER POTENTIALLY DANGEROUS MATERIALS SHALL BE SECURED.

17. REMOVAL OF CONSTRUCTION STRUCTURES: ALL TEMPORARY CONSTRUCTION STRUCTURES SHALL BE REMOVED AND ALL TEMPORARY FACILITIES SHALL BE OBLITERATED AND PUT BACK TO ORIGINAL CONDITION.

18. TRAFFIC CONTROL: WORK ON THIS PROJECT IS NOT EXPECTED TO AFFECT TRAFFIC AT NEARBY STREETS. HOWEVER, IF ANY CONSTRUCTION ACTIVITIES THAT MAY DISTURBED THE NORMAL TRAFFIC IN THE AREA, THESE ACTIVITIES WILL BE COORDINATED WITH THE DEPARTMENT OF PUBLIC WORKS TO INSURE SMOOTH AND SAFE DRIVING CONDITIONS.

LEGEND, SYMBOLS, AND ABBREVIATIONS

ABBREVIATION/ SYMBOLS	DESCRIPTION	ABBREVIATION/ SYMBOLS	DESCRIPTION
A.C.	ASPHALTIC CONCRETE	L	LENGTH
@	AT	✳	LIGHT POST (LP)
ARCH.	ARCHITECT	□	MAN HOLE (MH)
BC	BOTTOM OF CURB	MAX.	MAXIMUM
CB	CATCH BASIN	MECH.	MECHANICAL
▣	CABLE BOX (C-BOX)	M.J.	MECHANICAL JOINT
CHD	CHORD DISTANCE	MIN.	MINIMUM
CO	CLEAN OUT	O.C.	ON CENTER
CONC.	CONCRETE	PVC	POLY VINYL CHLORIDE
□	CONCRETE PAD	R	RADIUS
✳	COCONUT/PALM TREE	⊙	SEWER DRAINAGE MANHOLE (SDMH)
✳	IFIT/CYCAD/PANAO/NUNU TREE	SL	SEWER LINE
⊙	CONCRETE POWER POLE (CPP)	⊙	SEWER MANHOLE (SMH)
CONT.	CONTINUOUS	—	SIGN
DRWGS/DWGS.	DRAWINGS	S	SLOPE
∅	DIAMETER	STA.	STATION
DL	DRAINAGE LINE	STRUCT.	STRUCTURAL
EL./ELEV.	ELEVATIONS	TEL.	TELEPHONE
EMH	ELECTRICAL MANHOLE	THK.	THICK
EXIST./ (E)	EXISTING	TC	TOP OF CURB
---385---	EXISTING CONTOUR LINE	TW	TOP OF WALL
—x—x—	FENCE LINE	TYP.	TYPICAL
—400—	FINISHED CONTOUR LINE	WL	WATERLINE
FFE	FINISHED FLOOR ELEVATION	∅	WATER METER (WM)
FG	FINISHED GRADE	⊗	WATER VALVE (WV)
⚡	FIRE HYDRANT (FH)	⊕	WOODEN POWER POLE (WPP)
FM	FORCEMAIN	⊕	
—x—x—	GATE		
○	GATE POST (GP)		
⊗	GATE VALVE (GV)		
☆/GGN	GUAM GEODETIC NETWORK		
—	GUY WIRE (GW)		
INT.	INTERSECTION		
INV.	INVERT		

GENERAL CONSTRUCTION NOTES:

- OBSERVE & COMPLY WITH ALL FEDERAL AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY & ENVIRONMENTAL QUALITY.
- THE FINISHED GRADE INDICATED HEREON SHALL MATCH OR CONNECT TO ADJACENT EXISTING GROUND AS SHOWN ON THE GRADING PLANS. ANY DISCREPANCY DISCOVERED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.
- ALL DEBRIS AND TRASH FROM CONSTRUCTION SHALL BE DISPOSED OF TO THE APPROVED LANDFILL SITE AND THE CONTRACTOR SHALL COMPLY WITH ALL THE REQUIREMENTS PERTAINING TO THE USE OF DISPOSAL AREA.
- THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES SHOWN IN THE PLANS ARE BASED ON THE LATEST AVAILABLE DATA DURING THE TIME OF SURVEY AND INFORMATION OBTAINED FROM GCC AND UTILITY AGENCIES BUT NO GUARANTY AS TO THEIR ACCURACY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF EXISTING UTILITIES AND EXERCISE CAUTION WHEN EXCAVATING IN THE AREA. ANY DAMAGE(S) TO EXISTING UTILITIES AND STRUCTURES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
- WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN TO BE DONE, THE CONTRACTOR SHALL EXPOSE THE EXISTING UTILITIES AT THE PROPOSED CONNECTION TO VERIFY DEPTH AND ACTUAL LOCATION PRIOR TO EXCAVATING FOR THE NEW UTILITY LINES. IF UTILITIES NOT SHOWN IN THE PLANS ARE ENCOUNTERED OR POTENTIAL UTILITY CONFLICTS ARISES, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING EXISTING UTILITY LINE UNCOVERED IN THE EXCAVATIONS.
- PRIOR TO COMMENCING EXCAVATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL COORDINATE, BE RESPONSIBLE AND PAY FOR AL DAMAGES TO EXISTING UTILITIES AND STRUCTURES. PERSONAL INJURY RESULTING FROM CONTACT WITH EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- EXISTING UTILITIES SHALL REMAIN IN SERVICE AND IN PLACE, UNLESS NOTED OTHERWISE. INTERRUPTION OF SERVICE SHALL BE KEPT TO A MINIMUM AND SHALL BE DONE AT THE CONTRACTOR'S EXPENSE AND ONLY WITH THE APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY SHEETING AND BRACING THE EXCAVATION AND STABILIZING THE EXISTING GROUND TO PROVIDE SAFE AND SECURE FROM POTENTIAL SLIDING, CAVE-INS, SETTLEMENT, AND TO SUPPORT EXISTING STRUCTURES, POWER/TELEPHONE POLES, AND OTHER FACILITIES.
- FINISHED GRADES INDICATED ARE INCLUSIVE OF TOP SOIL (IF ANY).
- VERIFY & CHECK ALL DIMENSIONS & DETAILS SHOWN ON THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR CLARIFICATIONS AND RESOLUTIONS.
- THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO AND FROM ALL DRIVEWAYS AND STREETS NEAR THE PROJECT SITE.
- RESTORE TO THEIR ORIGINAL CONDITION EQUAL OR BETTER, ALL EXISTING IMPROVEMENTS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES, INCLUDING PAVEMENTS, EMBANKMENTS, DRIVEWAYS, CURBS, SIGNS, LANDSCAPING, STRUCTURES, UTILITIES, FENCES, ETC..
- WHEN EXCAVATING NEAR EXISTING UTILITY POLES OR STRUCTURES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SUCH POLES OR STRUCTURES DURING CONSTRUCTION AND MAKE REPAIRS TO ANY DAMAGES RESULTING FROM CONTRACTOR'S OPERATION.
- PROPERTY CORNERS AND ROAD MONUMENTS SHOWN ON THE PLANS OR DISCOVERED DURING CONSTRUCTION SHALL BE PRESERVED AND NOT TO BE DISTURBED. IN ANY CASE, IF THE CONTRACTOR DISTURBED ANY OF THESE MARKERS OR MONUMENTS, THEY SHALL BE REPAIRED AND RESTORED TO THEIR ORIGINAL AND BETTER CONDITION AT NO ADDITIONAL COST TO THE GWA.
- THE CONTRACTOR SHALL FOLLOW CLOSELY THE PROPOSED HORIZONTAL AND VERTICAL ALIGNMENTS. ANY PROPOSED DEVIATIONS FROM THE PROPOSED ALIGNMENTS MUST BE APPROVED BY THE CONTRACTING OFFICER BEFORE IT IS APPLIED IN THE FIELD.
- THE CONTRACTOR MUST SECURE UNDERGROUND TELEPHONE CABLE CLEARANCE PRIOR TO ANY EXCAVATION. ANY REPAIRS TO DAMAGED TELEPHONE CABLE FACILITIES OR RELOCATION OF THE SAME, SHALL BE BORNE BY THE CONTRACTOR AT NO COST TO GTA.
- EXCAVATIONS DEEPER THAN 3 FEET AND 5 TO 10 FEET FROM EXISTING POLES SHALL HAVE TRENCH SHORING. THE CONTRACTOR SHALL PROTECT AGAINST SOIL WASHOUT. IF EXCAVATION IS DEEPER THAN 3 FEET AND WITHIN 5 FEET FROM AN EXISTING POLE, THE POLE SHALL BE RELOCATED. IN ANY CASE, THE CONTRACTOR SHALL PROTECT THE INTEGRITY OF THE POLE FOUNDATION. ALL RELOCATION COSTS INCLUDING LABOR AND MATERIALS SHALL BE BURDENED BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT/MAKE APPLICATION WITH GPA AND SUBMIT GPA APPROVED RELOCATION PLANS PRIOR TO ANY MATERIALS ISSUED OR INSPECTIONS PERFORMED BY GPA. PROVIDE 12 INCHES MINIMUM CLEARANCE BETWEEN GPA POWER CONDUITS AND ALL NEW INSTALLATIONS. THE CONTRACTOR SHALL SECURE WORK CLEARANCE WITH GPA PRIOR TO EXCAVATION.
- NEWLY GRADED AREAS AND AREAS DISTURBED DURING CONSTRUCTION SHALL BE PROVIDED WITH 4" THICK TOP SOIL AND PLANTED WITH SEEDS OR TURF APPROPRIATE FOR THE TYPE OF SOILS AT THE SITE. COORDINATE WITH THE ENGINEER FOR TYPE OF SEEDS OR PLANTINGS TO BE USED. THE CONTRACTOR SHALL MAKE USE OF EXISTING TOP SOILS AT THE SITE, AS MUCH AS POSSIBLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF SEEDS OR PLANTINGS UNTIL A 95% GROUND COVER IS ATTAINED.
- AFTER SITE CLEARING AND GRADING CUTS ARE MADE WITHIN THE PLANNED BUILDING, INCLUDING ADJOINING SIDEWALKS, PAVEMENT AREAS, AND AT LEAST THREE (3) MORE FEET HORIZONTALLY BEYOND, THE EXPOSED SANDY CLAYEY SILT WITHIN THE UPPER 2 FEET SHOULD BE REMOVED FOR REPLACEMENT WITH COMPACTED, NONEXPANSIVE LIMESTONE/ GRAVEL FILL.

REVISIONS		
No.	Description	Date

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION

DATE: _____

Project:

**GUAM COMMUNITY COLLEGE
DNA FORENSIC LAB**

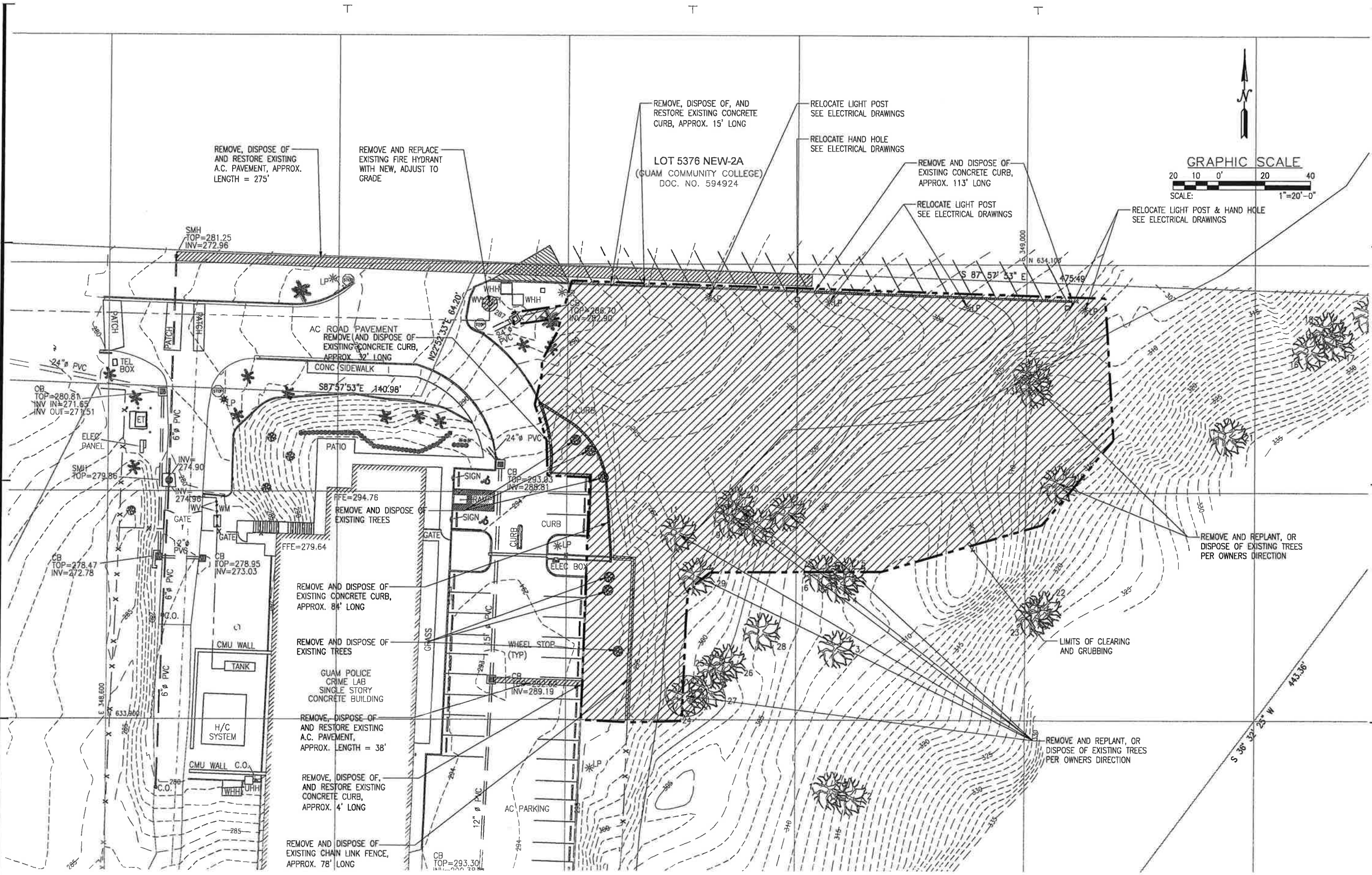
Title:

**ENVIRONMENTAL PROTECTION
SPECIFICATIONS, GENERAL NOTES,
SURVEY NOTES,
SYMBOLS & ABBREVIATIONS**

Designed:	ELV
Drawn:	ELV
Checked:	EMS
Supv:	EMS
Scale:	AS SHOWN
Date:	12-19-12
Project No.	GG11-03A
AutoCAD File	
Drawing No.	

C-0

Sheet No. _____ of _____



1 EXISTING CONDITION AND REMOVAL PLAN
SCALE: 1"=20'-0"

REVISIONS		
No.	Description	Date

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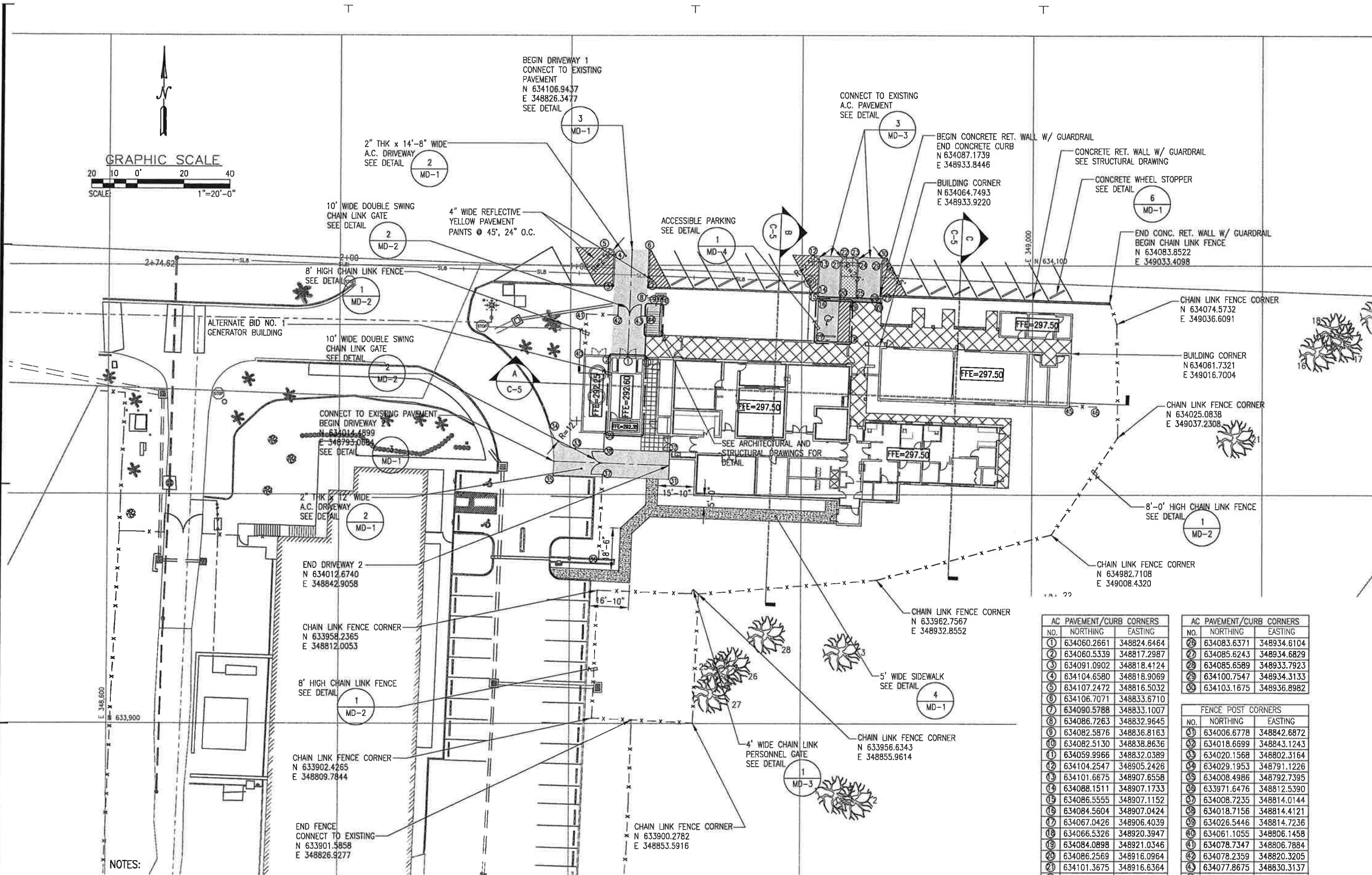
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**EXISTING CONDITION
AND REMOVAL PLAN**

Designed: ELV
Drawn: ELV
Checked: EMS
Supv: EMS
Scale: AS SHOWN
Date: 12-19-12
Project No. AutoCAD File
GG11-03A
Drawing No.

C-1

Sheet No. _____ of _____



NOTES:

1. THE CHAIN LINK FENCE ALIGNMENT (SOUTHEAST OF EXCAVATED AREA) IS SUBJECT TO ADJUSTMENT TO MINIMIZE REMOVAL/RELOCATION OF TREES.
2. TREE BRANCHES SHALL BE TRIMMED TO CREATE 6 FEET MINIMUM CLEARANCE FROM THE CHAIN LINK FENCE.

1 GEOMETRIC SITE PLAN
SCALE: 1"=20'-0"

AC PAVEMENT/CURB CORNERS		
NO.	NORTHING	EASTING
1	634060.2661	348824.6464
2	634060.5339	348817.2987
3	634091.0902	348818.4124
4	634104.6580	348818.9069
5	634107.2472	348816.5032
6	634106.7071	348833.6710
7	634090.5788	348833.1007
8	634086.7263	348832.9645
9	634082.5876	348836.8163
10	634082.5130	348838.8636
11	634059.9966	348832.0389
12	634104.2547	348905.2426
13	634101.6675	348907.6558
14	634088.1511	348907.1733
15	634086.5555	348907.1152
16	634084.5604	348907.0424
17	634067.0426	348906.4039
18	634066.5326	348920.3947
19	634084.0898	348921.0346
20	634086.2569	348916.0964
21	634101.3675	348916.6364
22	634103.7767	348919.2178
23	634103.6812	348921.9353
24	634101.0976	348924.3185
25	634085.9949	348923.7980

AC PAVEMENT/CURB CORNERS		
NO.	NORTHING	EASTING
26	634083.6371	348934.6104
27	634085.6243	348934.6829
28	634085.6589	348933.7923
29	634100.7547	348934.3133
30	634103.1675	348936.8982

FENCE POST CORNERS		
NO.	NORTHING	EASTING
31	634006.6778	348842.6872
32	634018.6699	348843.1243
33	634020.1568	348802.3164
34	634029.1953	348791.1226
35	634008.4986	348792.7395
36	633971.6476	348812.5390
37	634008.7235	348814.0144
38	634018.7156	348814.4121
39	634026.5446	348814.7236
40	634061.1055	348806.1458
41	634078.7347	348806.7884
42	634078.2359	348820.3205
43	634077.8675	348830.3137
44	634077.7861	348832.5243
45	634038.9079	349016.0336
46	634038.4756	349027.8955

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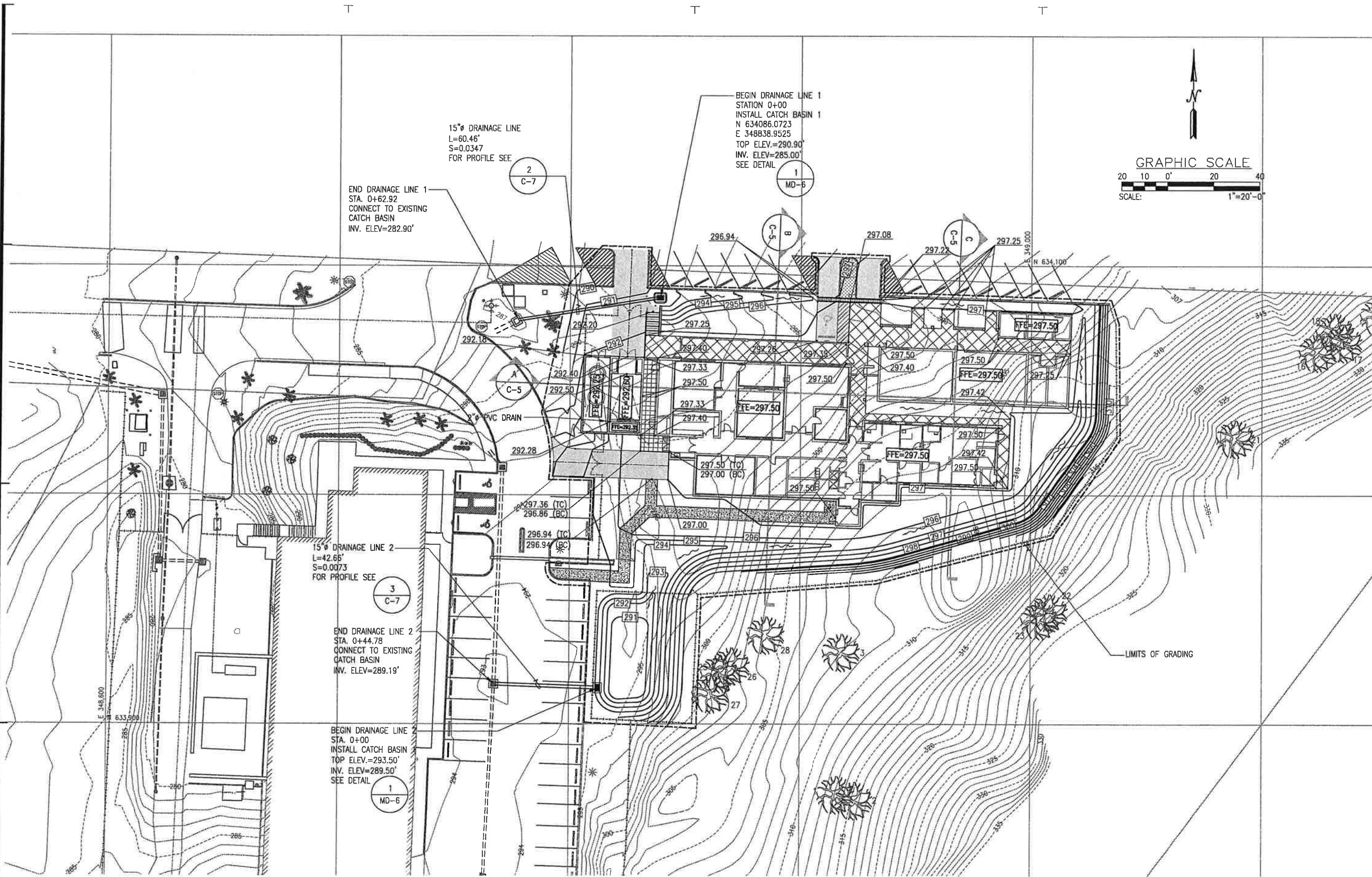
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GUAM
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION
DATE: _____

Project:
GUAM COMMUNITY COLLEGE
DNA FORENSIC LAB

Title:
GEOMETRIC SITE PLAN

Designed: ELV
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1 GRADING AND DRAINAGE PLAN
SCALE: 1"=20'-0"

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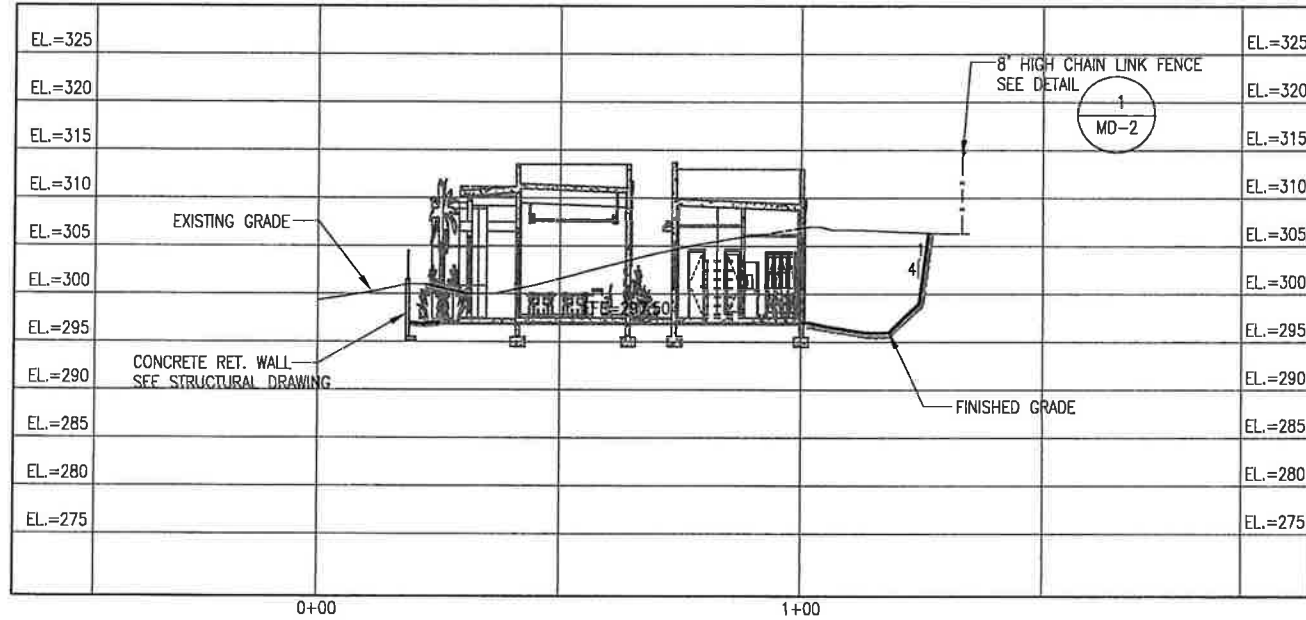

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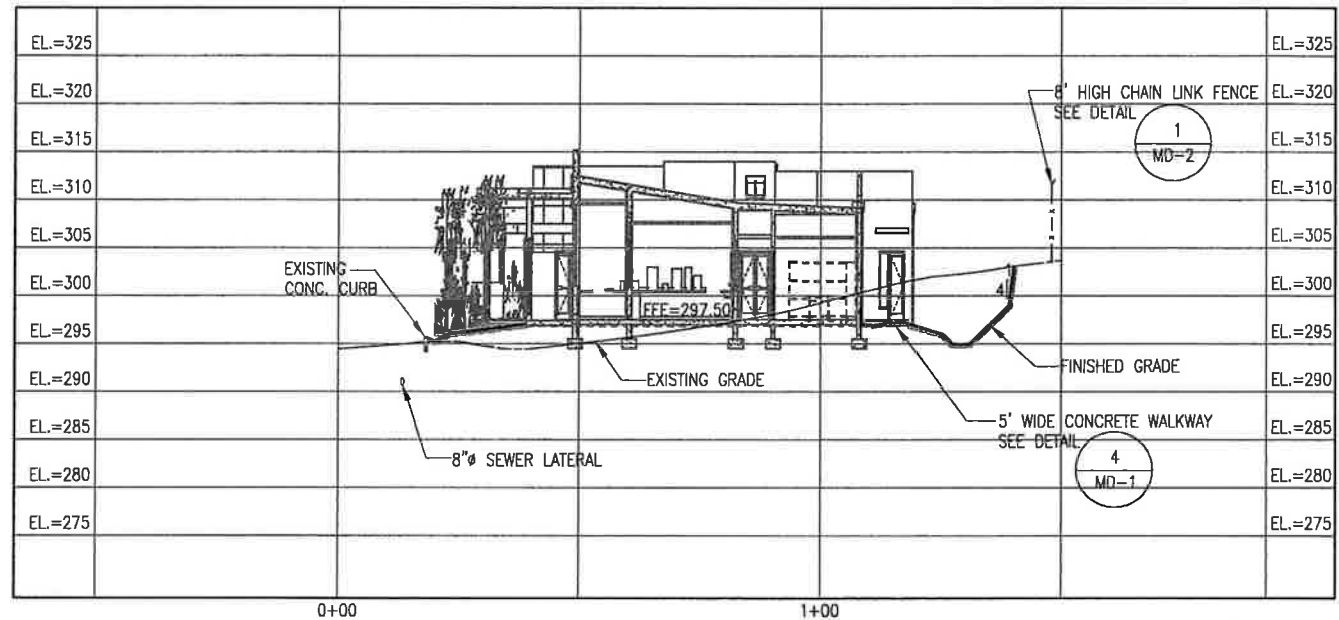
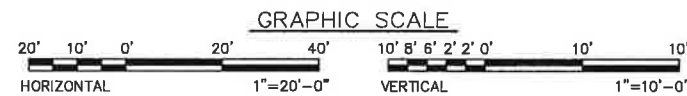
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Project No.	GG11-03A
AutoCAD File	
Drawing No.	

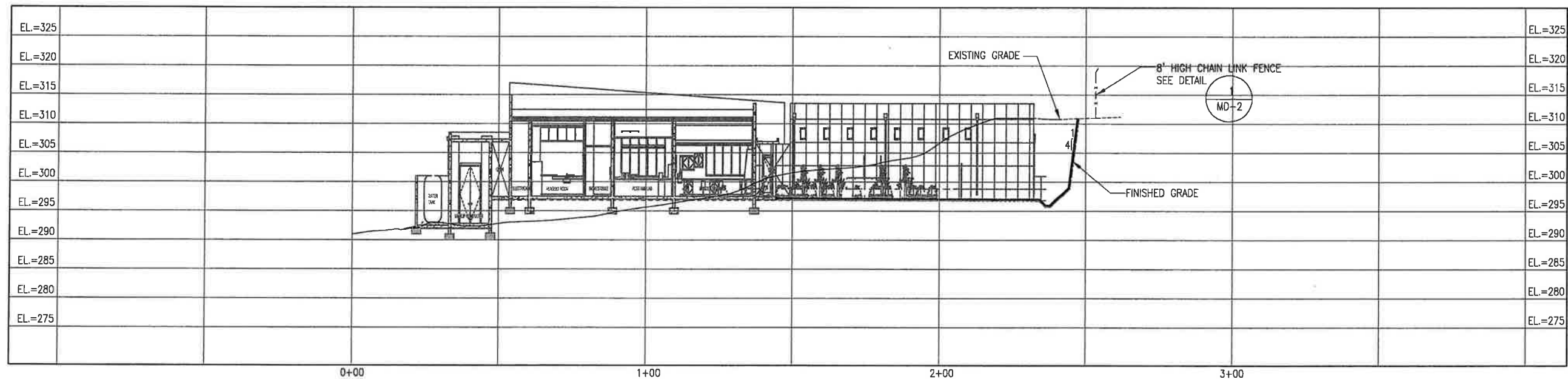
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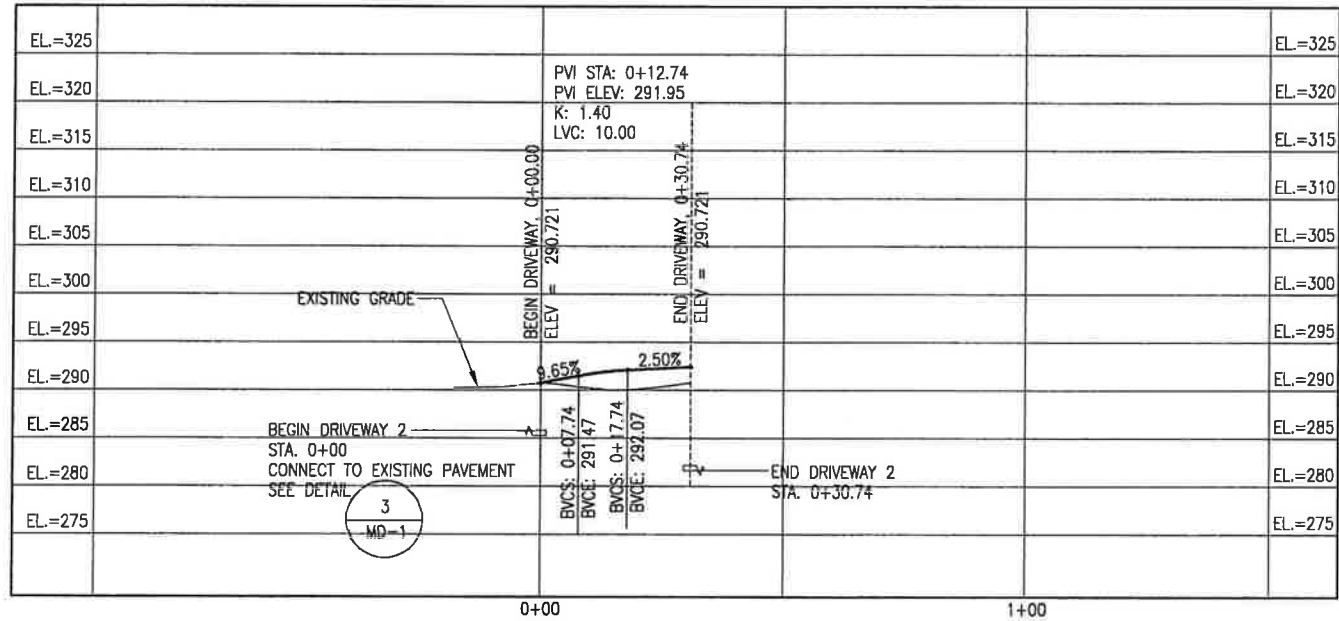
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Project:
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Title:
**SECTIONS, SEWERLINE PROFILE,
WATERLINE PROFILE
& DRAINAGE LINE PROFILE**

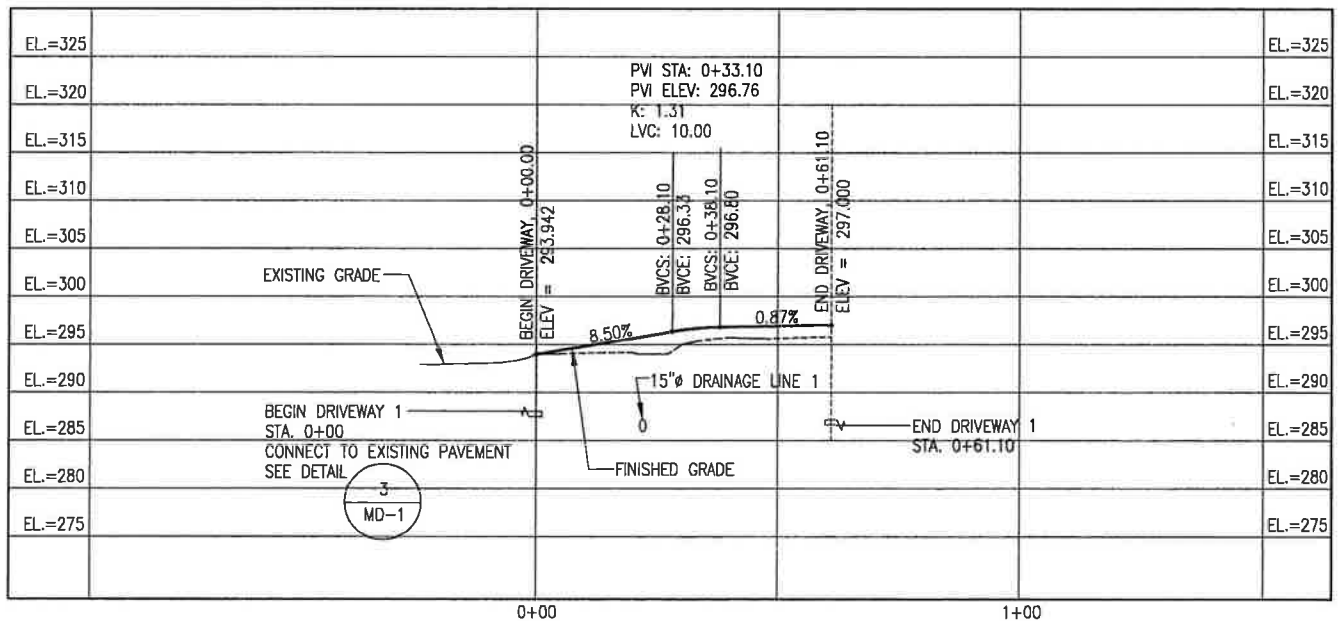
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C-5



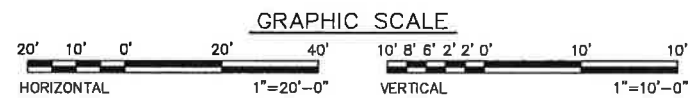
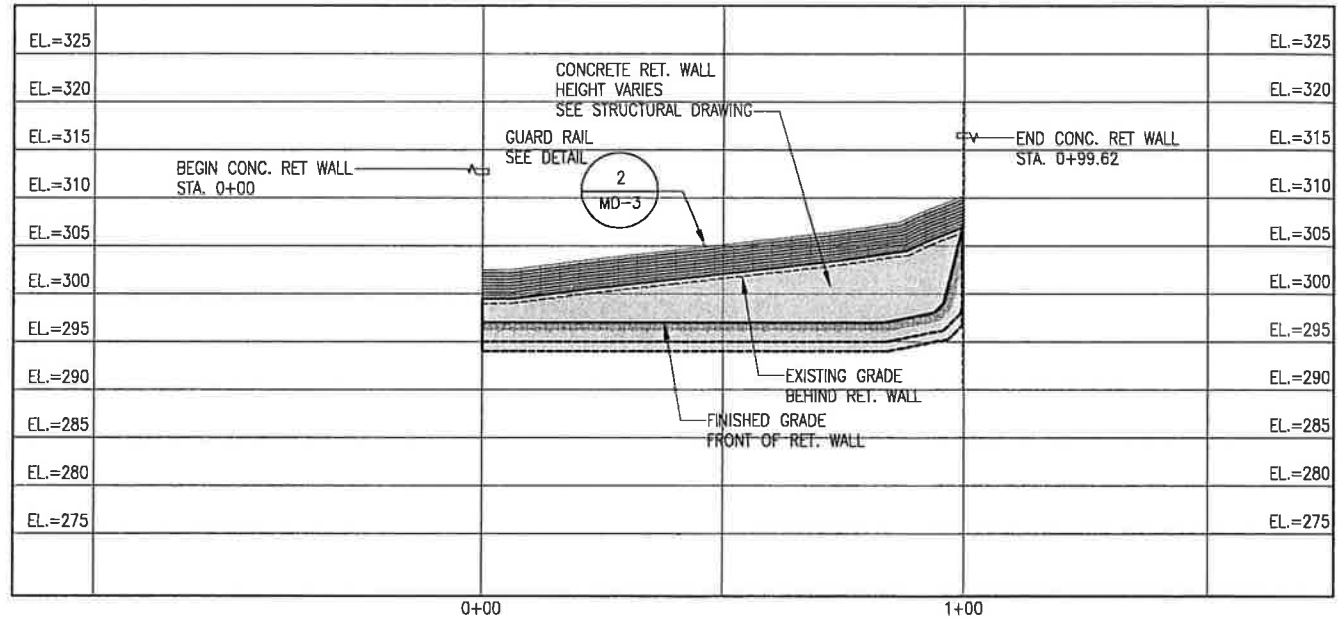
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1 DRIVEWAY 1 PROFILE

SCALE: HOR: 1"=20'-0"
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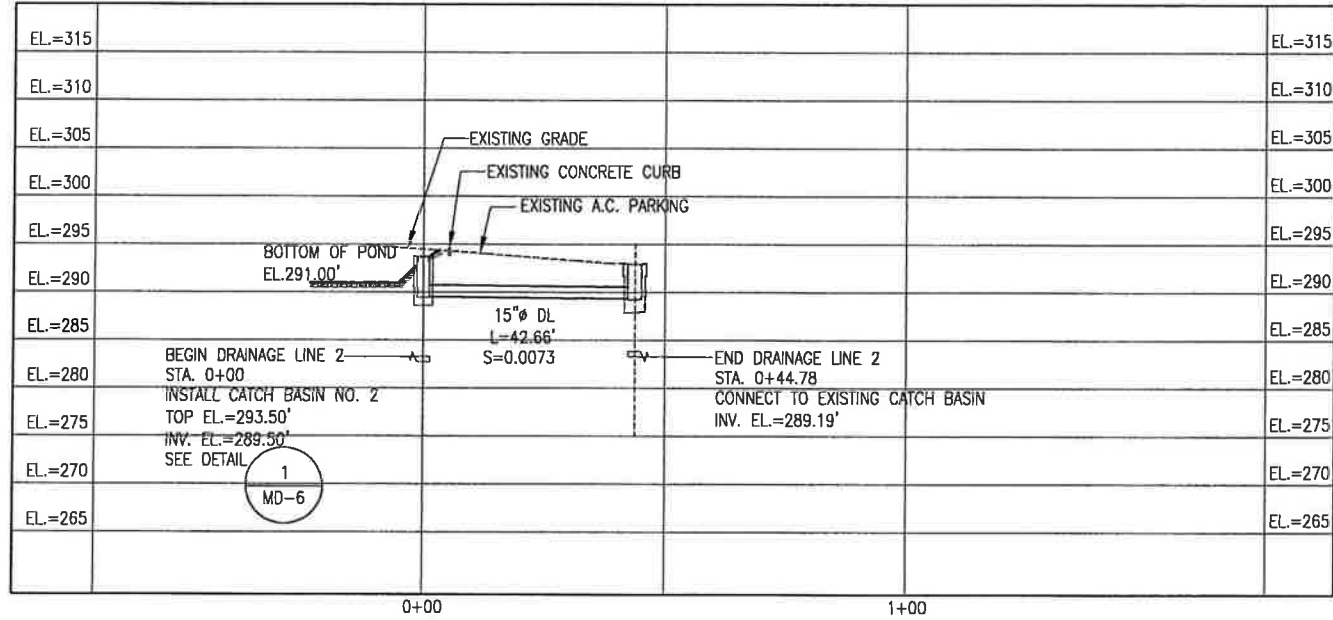
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Title:
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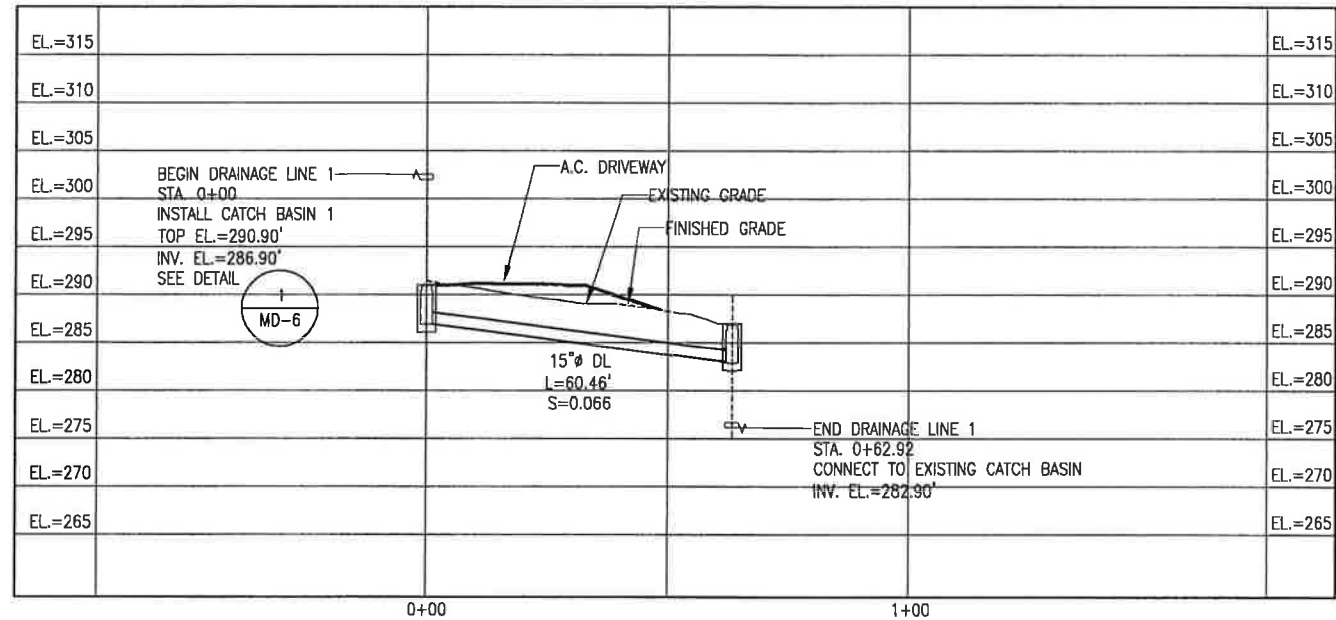
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C-6

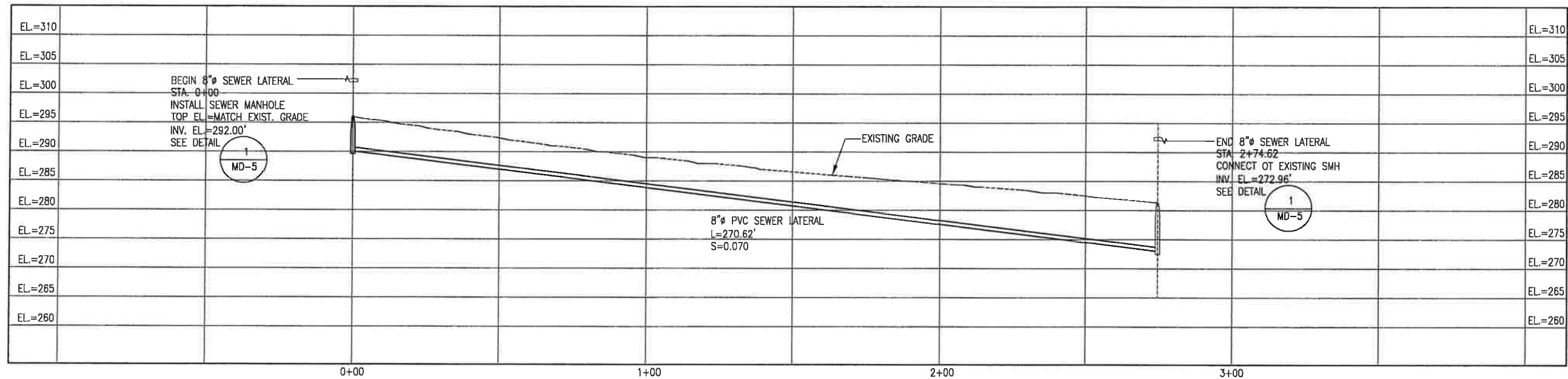
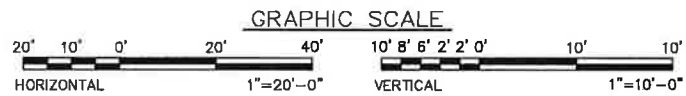
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2 DRAINAGE LINE 1 PROFILE
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1 SEWER LATERAL PROFILE
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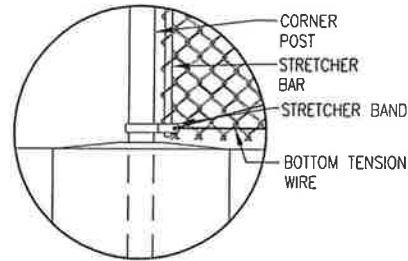
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Title:
SEWERLINE PROFILE
& DRAINAGE LINE PROFILES

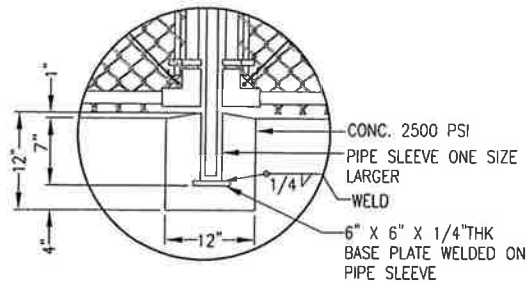
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Drawing No.

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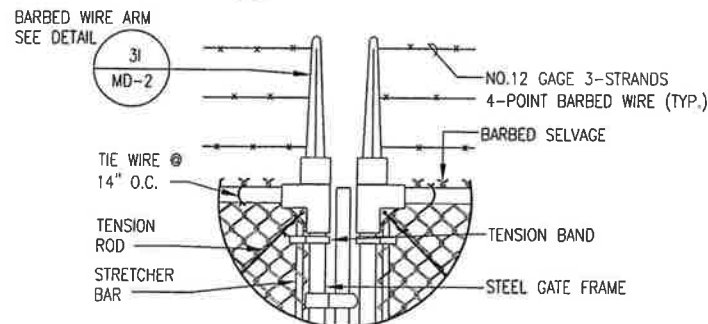
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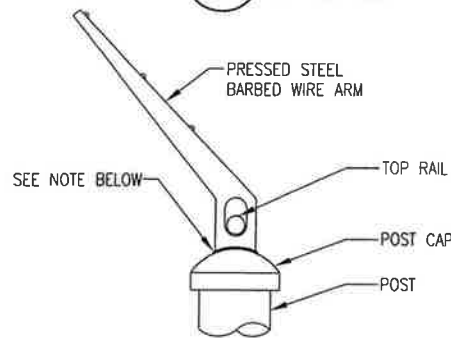
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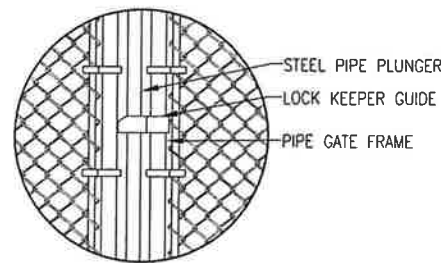
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3F DETAILS
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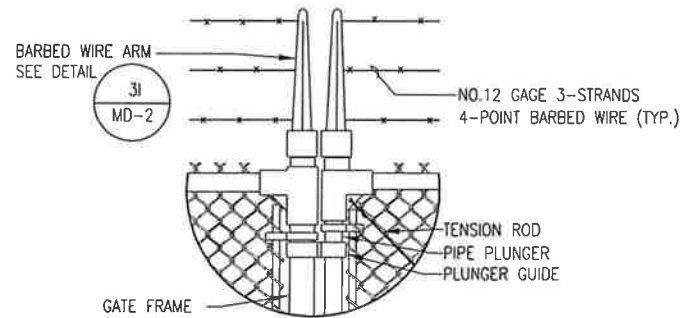


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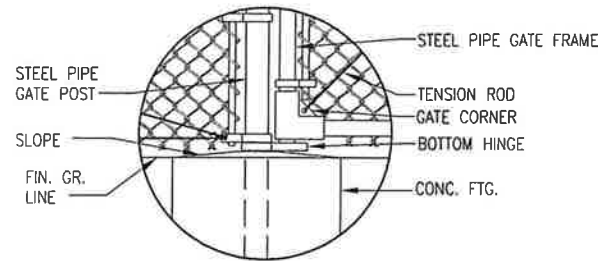


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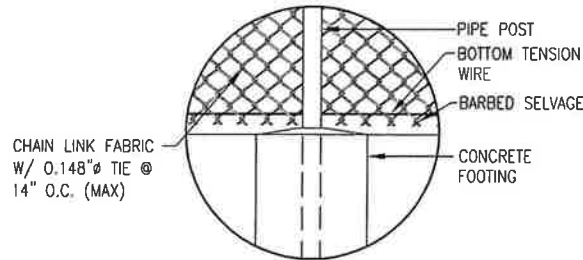
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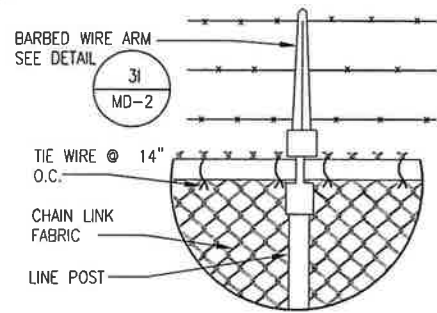
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3C DETAILS
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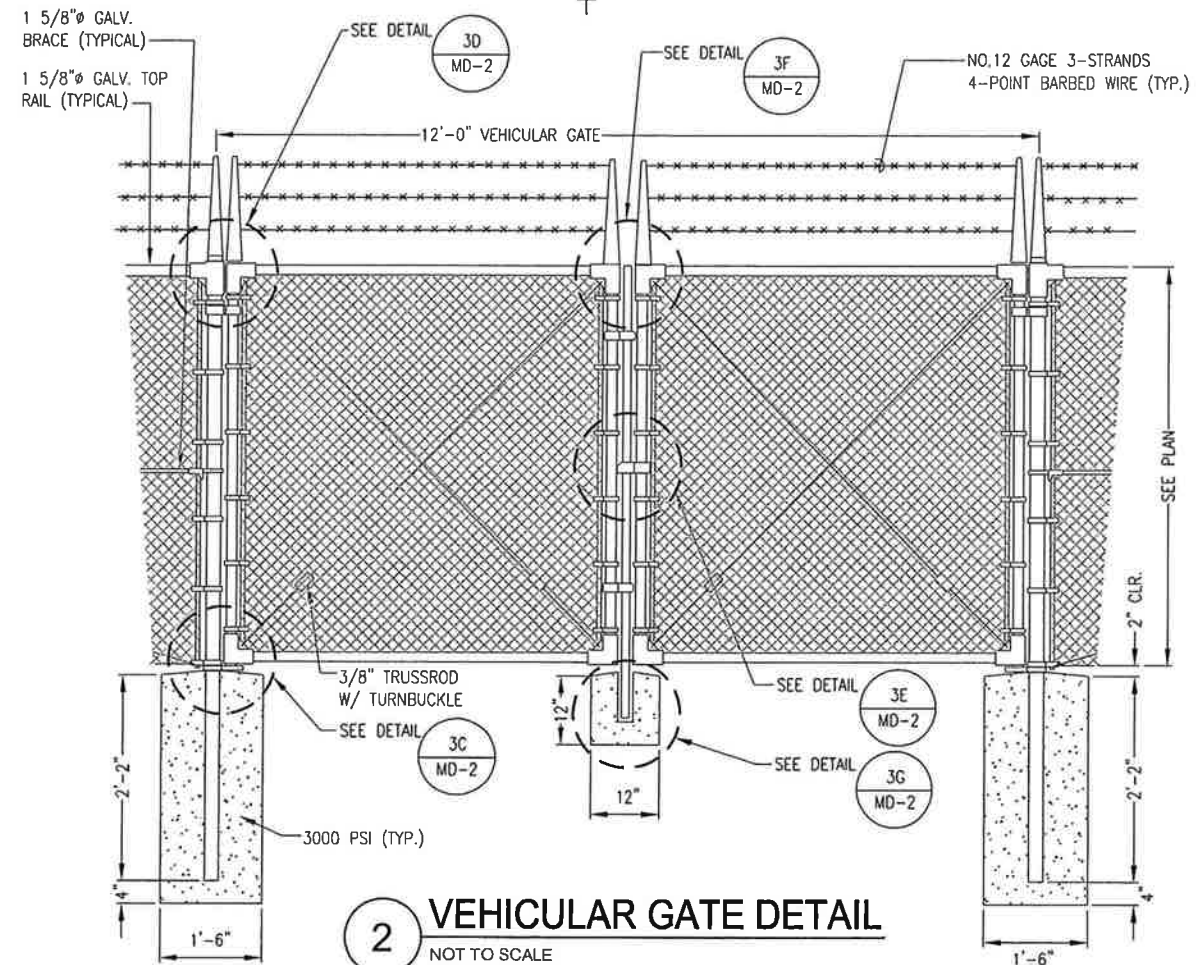
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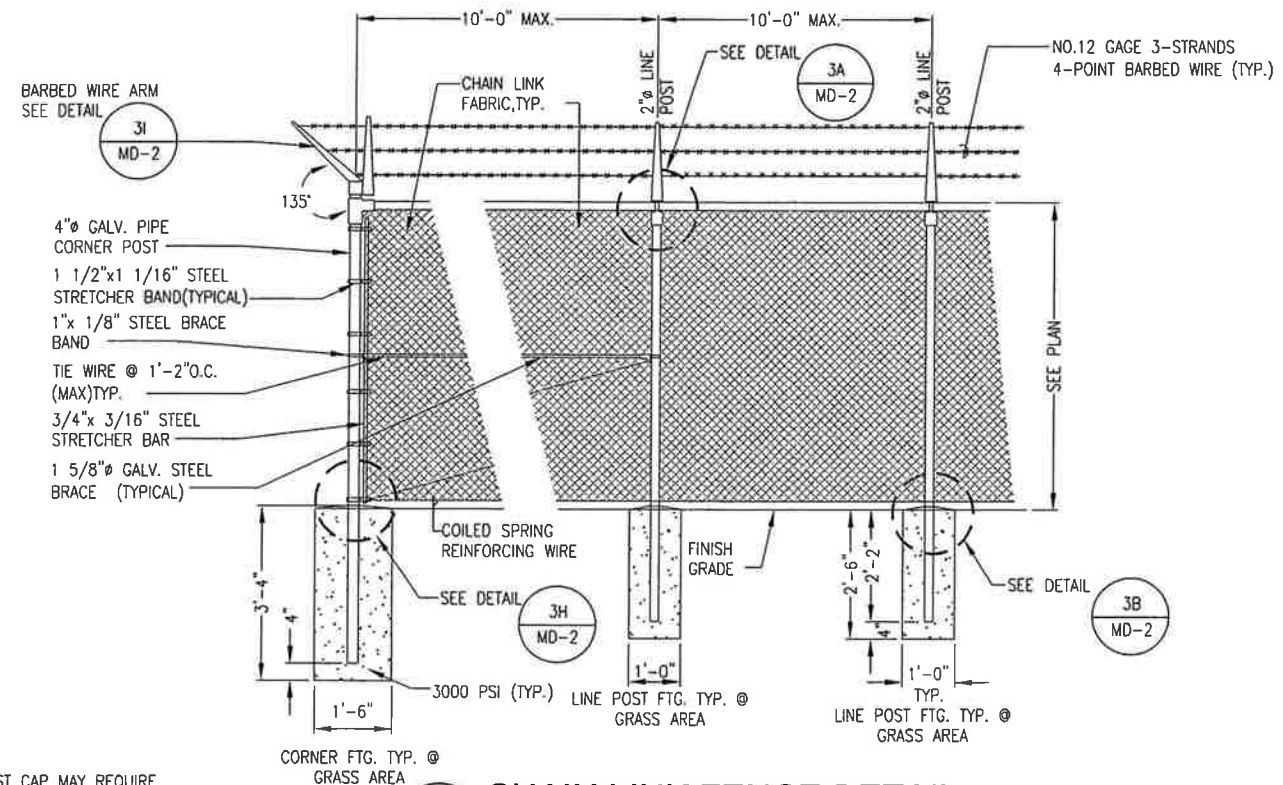
3A DETAILS
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NOTES:

1. EYE TOPS AND BARB WIRE ARMS CONNECTION TO THE POST CAP MAY REQUIRE SPECIAL FABRICATION. THE CONNECTION SHALL BE GALVANIZED AFTER FABRICATION.
2. PIPE DIAMETER SHOWN ARE NOMINAL SIZES, SCHEDULE 40, GALVANIZED PIPE.
3. BARBED WIRES, ARMS, AND RELATED ACCESSORIES SHOWN IN THIS SHEET APPLY ONLY TO LIFT STATION FENCE AND GATE.



2 VEHICULAR GATE DETAIL
NOT TO SCALE



1 CHAIN LINK FENCE DETAIL
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REVISIONS

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MD-2

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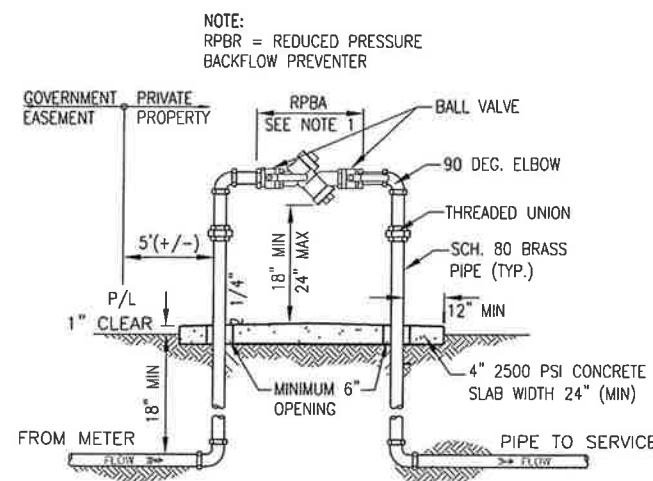
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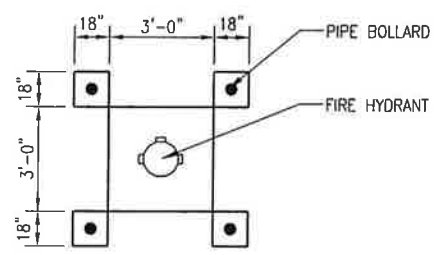
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Drawing No.	

MD-3

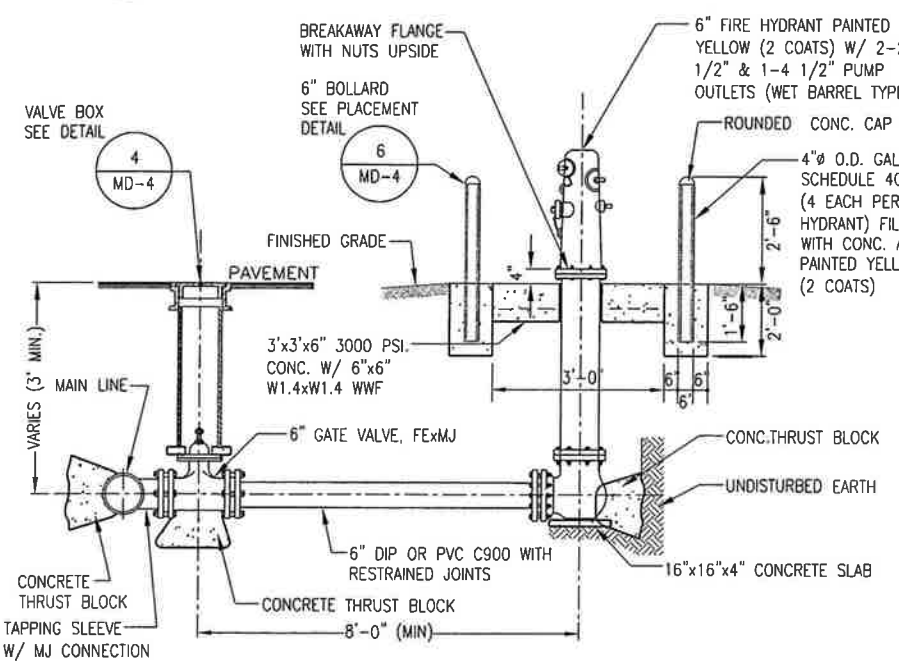
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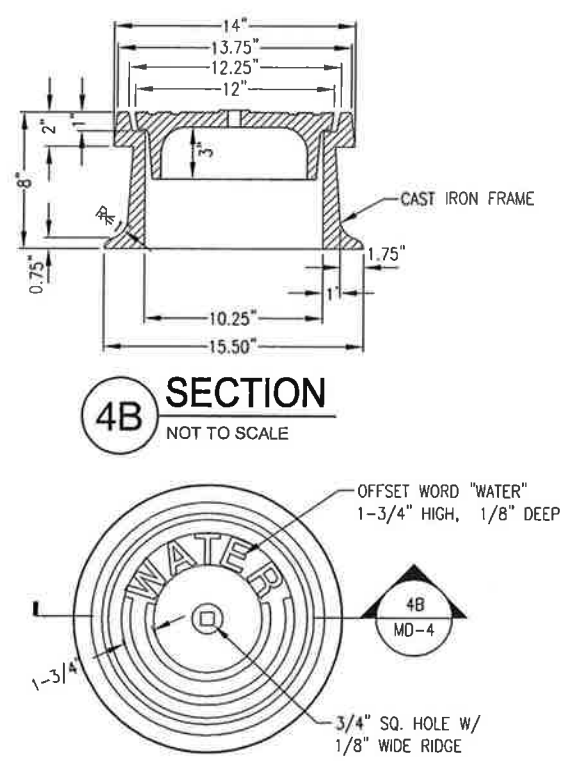
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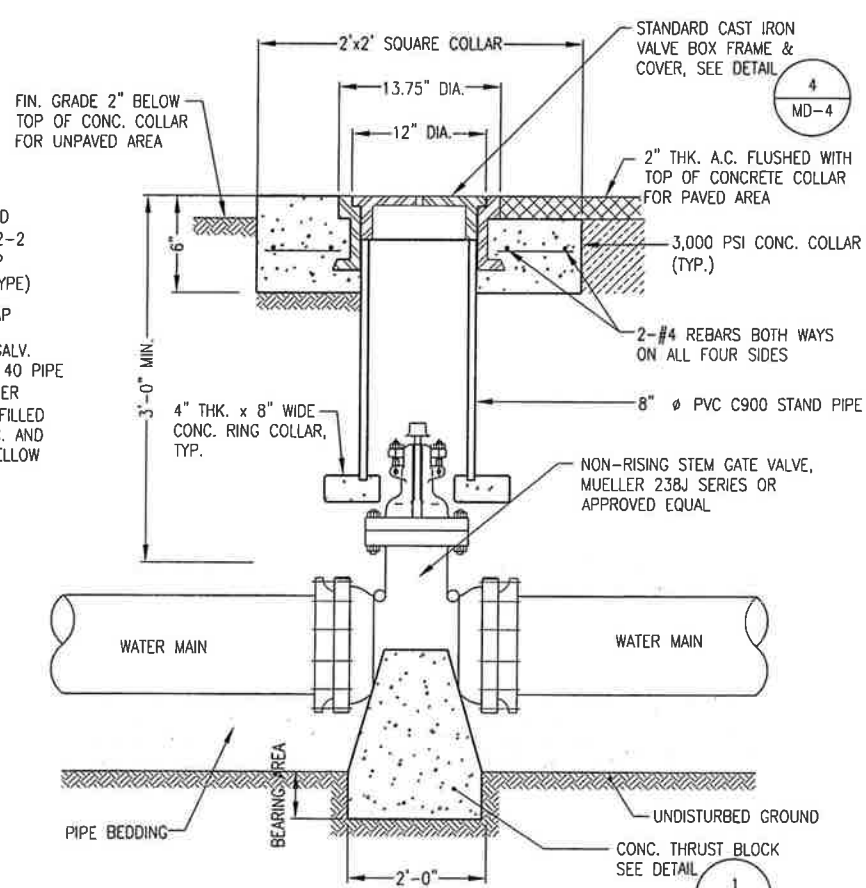


4B\"/>



4A\"/>

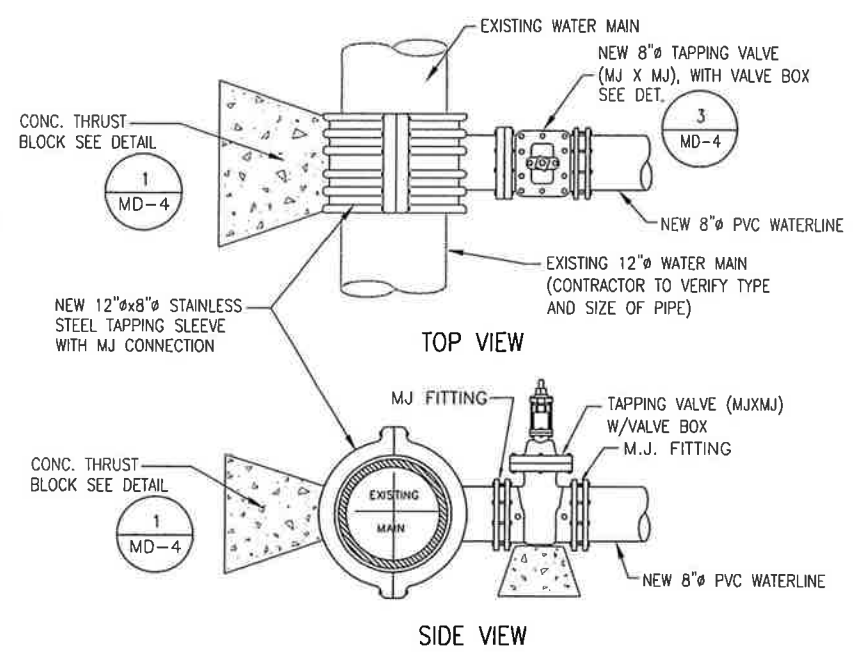
4\"/>



3\"/>

TAPPING NOTES:

1. WHEN TAPPING MAIN IS WET TAPPED, THE BRANCH MAIN MUST BE AT LEAST ONE SIZE SMALLER THAN THE MAIN. OTHERWISE, CUT-IN CONNECTION IS REQUIRED, UNLESS OTHERWISE APPROVED BY GWA.
2. CONTRACTOR SHALL VERIFY LOCATION, SIZE, MATERIAL, AND DEPTH OF THE EXISTING WATER MAIN BEFORE TAPPING. TAPPING SHALL BE PERFORMED ONLY WITH THE PRESENCE OF A GWA INSPECTOR.
3. TAPPING SLEEVE MUST BE 24" (MINIMUM) SEPARATION FROM ANY BELL, COUPLING, VALVE, FITTING, OR ANOTHER TAPPING.
4. ALL CONNECTION TO THE EXISTING MAIN SHALL BE MADE AFTER THE NEW WATER MAIN PASSED THE REQUIRED TESTS AND APPROVED BY GWA IN THE PRESENCE OF AUTHORIZED GWA REPRESENTATIVE.
5. ALL FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION OF 50 PPM (MG/L) MINIMUM CONCENTRATION.
6. ALL NUTS AND BOLTS MUST BE STAINLESS STEEL TYPE 304 OR 316.
7. ALL BOLTS, NUTS, OR END OF MECHANICAL JOINT FITTINGS SHALL NOT BE IN CONTACT WITH CONCRETE.



2\"/>

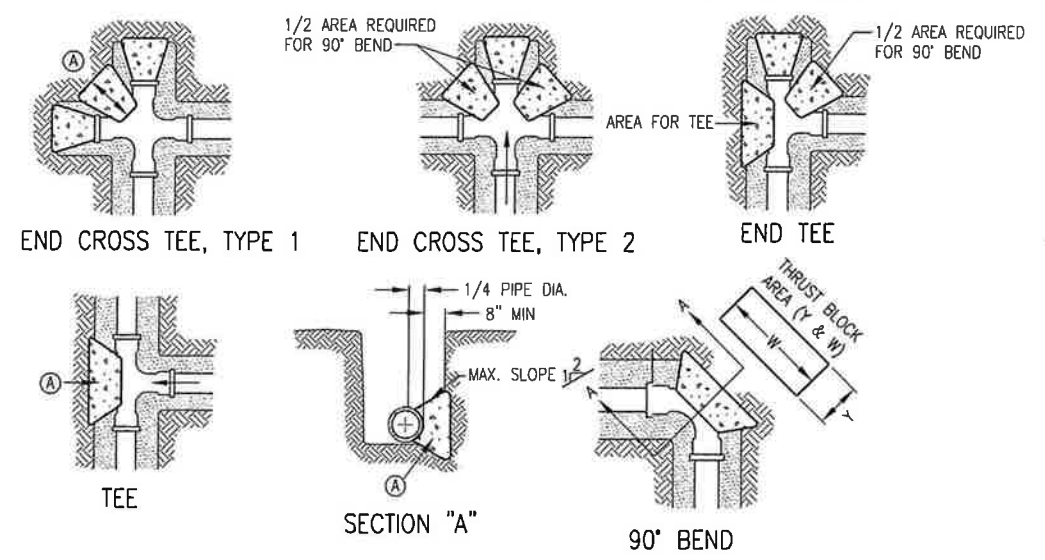
NOTES:

1. TABLE IS BASED ON 2000#/SQ. FT. SOIL. IF CONDITIONS ARE FOUND TO INDICATE SOIL BEARING IS LESS, THE AREAS SHALL BE INCREASED ACCORDINGLY.
2. AREAS FOR PIPE LARGER THAN 18" SHALL BE CALCULATED.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2500 PSI.
4. THRUST BLOCK IS TO EXTEND TO UNDISTURBED SOIL.
5. SIZE MAY BE DECREASED FOR LESSER DEGREE BENDS AS DETERMINED BY ENGINEER.
6. KEEP CONCRETE CLEAR OF M.J. OR BELL AND SPIGOT JOINTS.
7. BLOCK IN A SIMILAR MANNER AT TEES, HYDRANTS, PLUG OR OTHER LOCATIONS AS REQUIRED.
8. WHEN NECESSARY ADDITIONAL THRUST RESTRAINT METHODS MAY BE USED, SUCH AS MECHANICAL JOINT RESTRAINTS, TIE-RODS RECOMMENDATIONS) OR OTHER APPROVED METHODS.

PIPE SIZE	WATER PIPE	
	TEE, DEAD END AND 90° BEND	45° AND 22 1/2° BENDS
4" & LESS	3 SQ. FEET	3 SQ. FEET
6"	4 SQ. FEET	3 SQ. FEET
8"	6 SQ. FEET	3 SQ. FEET
10"	9 SQ. FEET	5 SQ. FEET
12"	13 SQ. FEET	7 SQ. FEET
16"	23 SQ. FEET	12 SQ. FEET
18"	29 SQ. FEET	15 SQ. FEET

CONSTRUCTION KEY NOTES:

- A. LENGTH "Y & W" AS REQUIRED TO OBTAIN BEARING AREA AGAINST UNDISTURBED SOIL.
- B. MINIMUM THRUST BLOCK AREA REQUIREMENTS FOR (Y & W) AS FOLLOWS:



1\"/>

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EDUARDO M. SALAS
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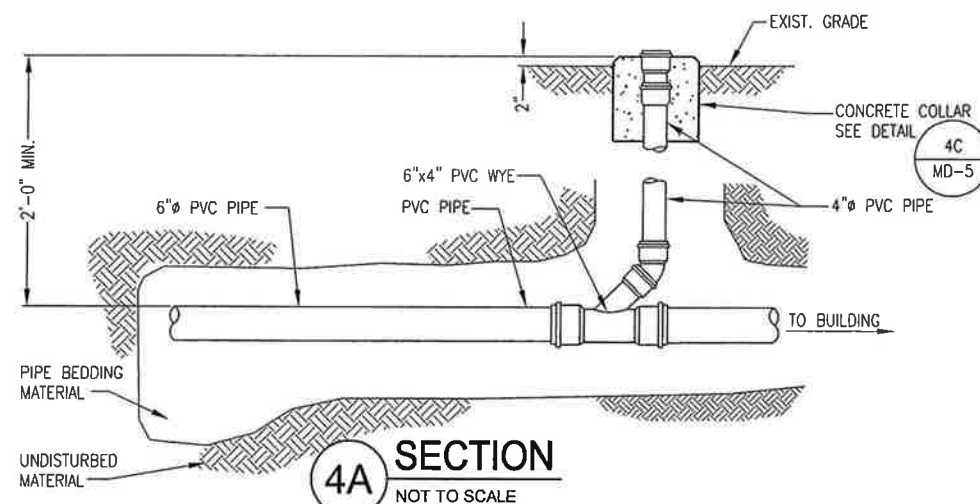
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AutoCAD File	
Drawing No.	MD-4

Sheet No. _____ of _____



4 SEWER LATERAL/CLEANOUT DETAIL
NOT TO SCALE

1. CENTER PIPE IN CONNECTOR OPENING.
2. POSITION CLAMP TAKE-UPS 90° APART. USING T-HANDLE TORQUE WRENCH, TIGHTEN THE TWO SETS OF CLAMPS ALTERNATELY TO 60 IN. LBS...
3. INSPECT CONNECTOR TO ENSURE THAT TAKE-UP IS UNIFORM AND RUBBER IS EVENLY COMPRESSED AROUND PIPE.
4. ON MINIMUM PIPE O.D. INSTALLATIONS, LIFT THE RUBBER UP UNDERNEATH THE PIPE CLAMP SCREW SO THAT THE CONNECTOR CONTACTS THE BOTTOM SURFACE OF THE PIPE WHILE THE PIPE CLAMP SCREW IS BEING TIGHTENED.

APPLICATION OF PIPE LUBRICATION

ON UNDERSIDE OF THE CLAMP WILL ALSO HELP ASSURE THAT AN EVEN CONTRACTION OF RUBBER IS MAINTAINED THROUGHOUT THE CLAMPING AREA.

5. AFTER THE PIPE CLAMP HAS BEEN TIGHTENED DOWN FIRMLY, MOVE THE PIPE HORIZONTALLY AND/OR VERTICALLY TO BRING IT TO GRADE.



1. PRECAST SMH SHALL CONFORM TO ASTM C478.
2. APPLY TWO COATS OF BITUMINOUS WATERPROOF COATING TO EXTERIOR SURFACE OF MANHOLE WALL TO FINISHED GRADE.

MD-5

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