

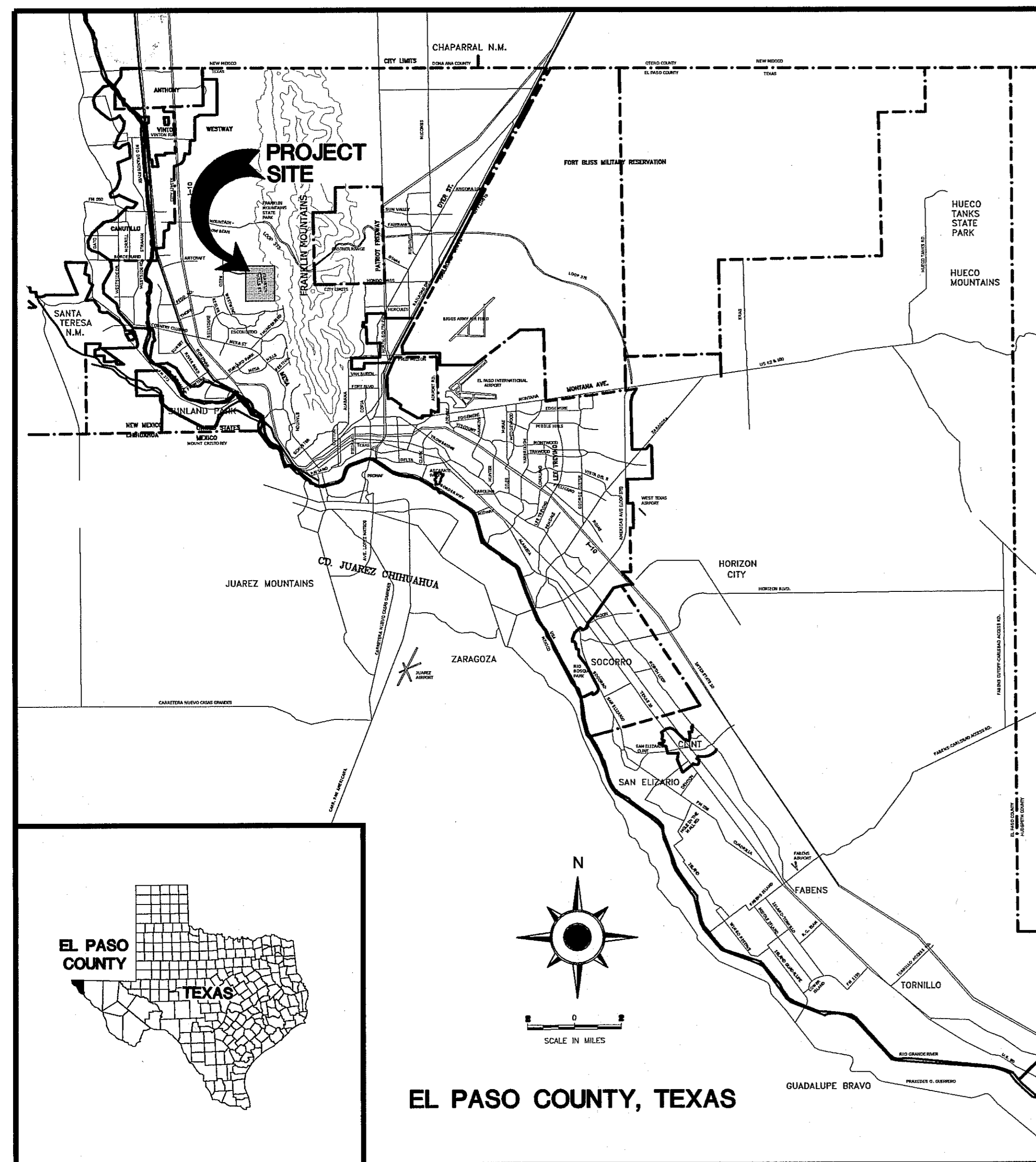
FRANKLIN HILLS UNIT TEN

SUBDIVISION IMPROVEMENT PLANS

FRANKLIN HILLS, LLC

EL PASO COUNTY, TEXAS
OCTOBER 2016

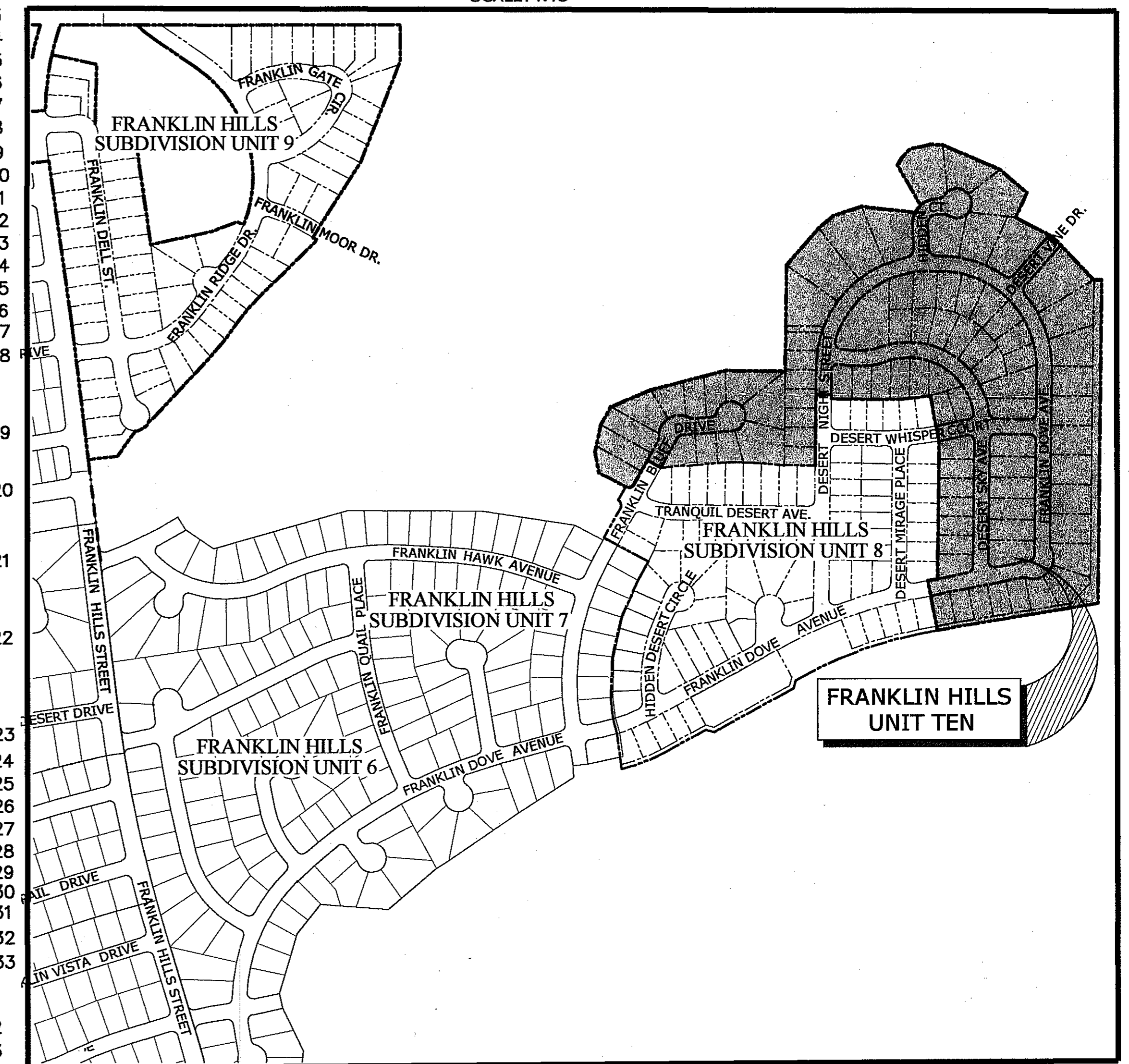
VICINITY MAP



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LOCATION MAP



CITY DEVELOPMENT DEPARTMENT

Reviewed For Conformance For Condition Related To:

- Submittals
- Designs
- Grading & Drainage
- Retaining Walls
- Foundation Details
- On Site Parking System
- On Site Parking System

Contractor Must Call 24 Hours Prior To Construction for Inspections

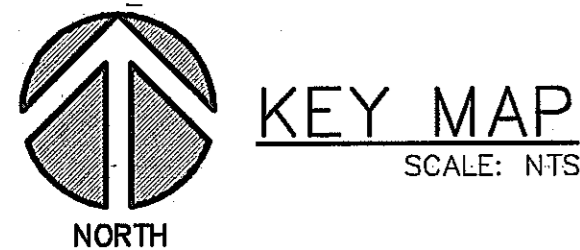
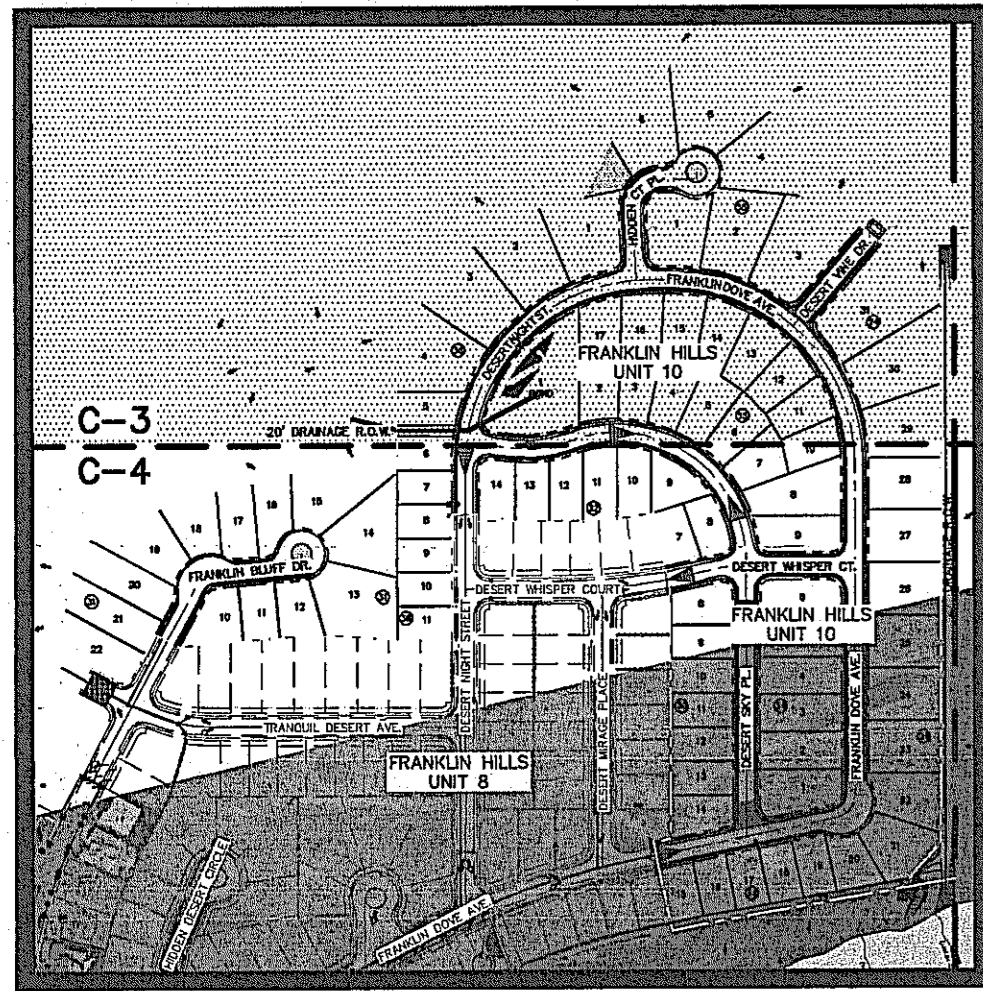
By: *[Signature]* Nov. 14, 2016

QUANTUM
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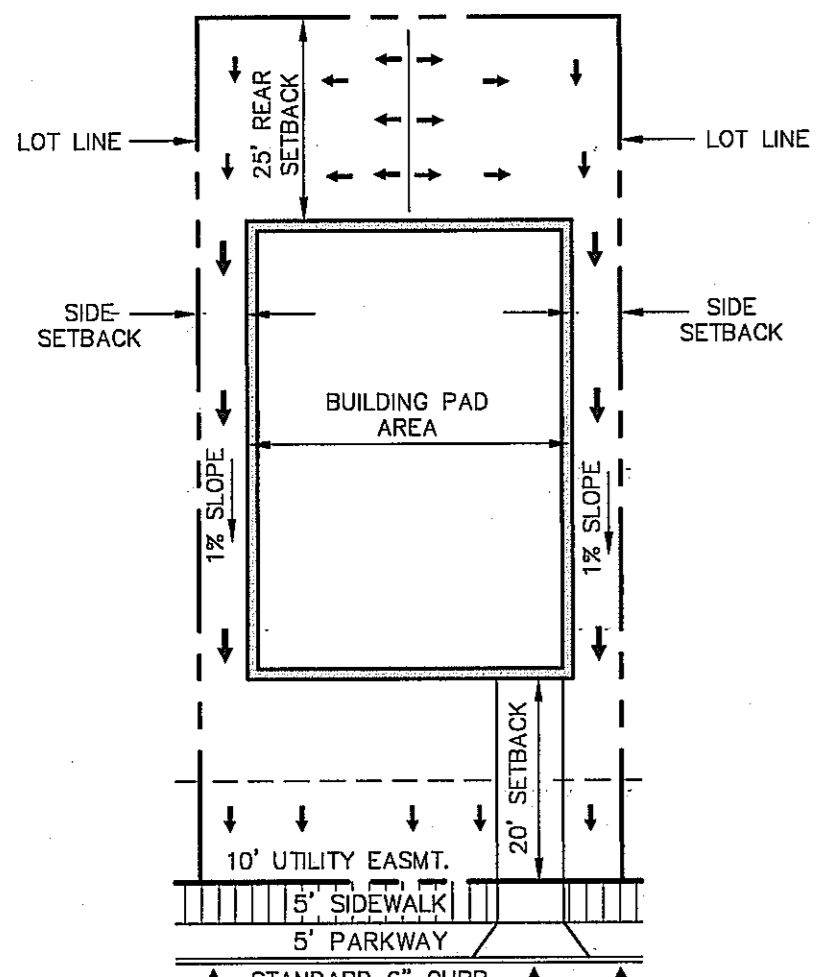
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IS AN OFFENSE UNDER
THE TEXAS ENGINEERING PRACTICE
ACT.

[Signature]
10/28/16



DRIVEWAY NOTE:
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FT. AND 14% MAX. THEREAFTER. (BLDG. CD. 18.08.060 C) FOR SETBACK DIMENSIONS REFER TO ZONING ORDINANCE.

LOT GRADE NOTE:
FG=AS SHOWN ON GRADING PLAN THIS SHEET.
FF=SHALL BE OBTAINED BY ADDING 6 INCHES TO EACH LOT FINISHED GRADE ELEVATION AS INDICATED ON THE GRADING PLAN THIS SHEET.



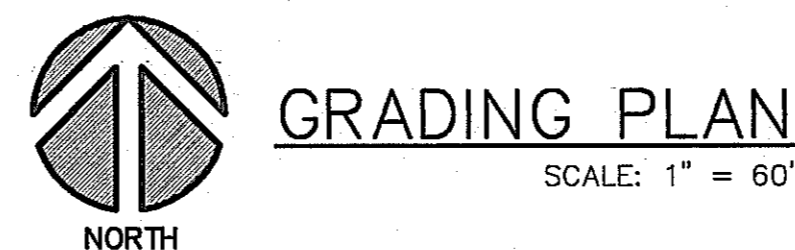
TYPICAL LOT LAYOUT SCALE: N.T.S.

GRADING SPECIFICATIONS

- CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE; FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL, UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED; REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION. BURNING IS NOT PERMITTED ON OWNER'S PROPERTY. REMOVE WASTE MATERIALS FROM OWNER'S PROPERTY.
- SATISFACTORY FILL MATERIALS: FILL MATERIALS SHALL BE FREE OF ANY ORGANIC OR DELETERIOUS SUBSTANCE AND SHALL BE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, GC, SM, SP, SM, AND SC.
- UNSATISFACTORY FILL MATERIAL: ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS ML, MH, CL, CH, OL, OH, AND PT, OR WHERE THE PLASTICITY INDEX EXCEEDS 12.
- EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED.
- GROUND SURFACE PREPARATION FOR FILL: REMOVE VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIALS, AND DELETERIOUS MATERIAL FROM GROUND SURFACE UPON WHICH THE FILL IS TO BE PLACED. THE SURFACE SHALL THEN BE SCARIFIED TO A DEPTH OF AT LEAST 6-INCHES, AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD PREVENT UNIFORM COMPACTION. FLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE. AFTER PLOWING AND SCARIFYING FILL AREA, IT SHALL THEN BE DICED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS, BROUGHT TO OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1587.
- PLACEMENT OF FILL: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. PLACE FILL MATERIALS EVENLY ADJACENT TO SITE APPURTENANCES, PIPING, OR CONDUIT TO REQUIRED ELEVATIONS. PREVENT WEDGING ACTION OF BACKFILL AGAINST SITE APPURTENANCES OR DISPLACEMENT OF PIPING OR CONDUIT BY CARRYING MATERIAL UNIFORMLY AROUND SITE APPURTENANCES, PIPING, OR CONDUIT TO APPROXIMATELY SAME ELEVATION IN EACH LIFT. COMPACT SOIL TO NOT LESS THAN 95% OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D1557.
- MOISTURE CONTROL: WHERE SUBGRADE OR LAYER OF SOIL MATERIAL SHALL BE CONDITIONED FOR OPTIMUM MOISTURE BEFORE COMPACTION. UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. WATER CONTENT SHALL BE WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY.
- QUALITY CONTROL: THE OWNER SHALL PROVIDE A GEOTECHNICAL ENGINEER TO PERFORM FIELD DENSITY TEST OF THE COMPACTION OF EACH LAYER OF FILL. DENSITY TESTS SHALL BE TAKEN IN THE COMPACTED MATERIAL BELOW THE DISTURBED SURFACE. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL COSTS RESULTING FROM THE REQUIRED DENSITIES NOT MET. SUPERVISION BY THE GEOTECHNICAL ENGINEER DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

GENERAL NOTES:

- THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING HIS BID.
- THE CONTRACTOR SHALL SCHEDULE AND PERFORM HIS WORK SO AS TO INSURE THE SAFE AND SUFFICIENT PASSAGE OF STORMWATER RUNOFF DURING THE COURSE OF HIS OPERATIONS. ALL REQUIRED LABOR, TOOLS, EQUIPMENT, AND SUPERVISION SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER.
- THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE OWNER, ALL AFFECTED UTILITY COMPANIES, AND ALL OTHER ENTITIES HAVING JURISDICTION OVER THE PROJECT.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES PRIOR TO COMMENCING WITH THE WORK. ANY DISCREPANCIES NOTED SHALL BE REPORTED IMMEDIATELY TO THE PROJECT ARCHITECT AND CIVIL ENGINEER, RESPECTIVELY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN STRICT CONFORMANCE WITH ALL CURRENT SAFETY CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO, OSHA REQUIREMENTS.
- THE EXISTING TOPOGRAPHIC/BOUNDARY INFORMATION ON THIS DRAWING WAS OBTAINED FROM A PROFESSIONAL LAND SURVEYOR. PROJECT CIVIL ENGINEER DOES NOT WARRANT THE ACCURACY OF THIS INFORMATION.
- WARNING BEFORE EXCAVATING, CONTRACTOR SHALL LOCATE AND PROTECT ALL UNDERGROUND UTILITY LINES. CONTRACTOR SHALL REPLACE ANY UTILITIES DAMAGED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL WATER CONSTRUCTION SITE AREA A MINIMUM OF TWICE A DAY TO KEEP DUST TO A MINIMUM - ONCE IN THE MORNING AND ONCE IN THE AFTERNOON.
- THIS GRADING PLAN SHALL BE COORDINATED WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS FOR SITE IMPROVEMENT DETAILS, DIMENSIONS AND LAYOUT AT TIME OF BUILDING PERMIT ISSUANCE.
- FILL MATERIAL FOR SITE GRADING AND BACKFILL MAY CONSIST OF ON SITE AND/OR IMPORTED MATERIALS IN COMPLIANCE WITH THE GEOTECHNICAL INVESTIGATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING IMPROVEMENTS IN THE PROJECT AREA AND ITS VICINITY. ANY DAMAGES RESULTING FROM CONTRACTOR'S WORK SHALL BE REPAIRED TO ITS ORIGINAL CONDITION BY CONTRACTOR, AT NO COST TO THE OWNER.
- CONTRACTOR SHALL INSURE THE FOLLOWING: ALL ACCESSIBLE ROUTES SHALL NOT EXCEED A RUNNING SLOPE GREATER THAN 1:20. NO WHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20. PARKING SPACES AND ACCESSIBLE AREAS SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 IN ALL DIRECTIONS. NEW WHEELCHAIR RAMPS SHALL NOT EXCEED A SLOPE OF 1:1.
- GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW AND COORDINATE THE ENTIRE SET OF DRAWINGS AND PROJECT MANUAL TO ESTABLISH PROJECT COST.
- CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS DURING CONSTRUCTION ACTIVITY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ENVIRONMENTAL FINES RESULTING FROM HIS/HER WORK AND SHALL HOLD THE OWNER HARMLESS IN SUCH CASES.
- ALL EXISTING VEGETATION WITHIN THE GRADING LIMITS SHALL BE REMOVED AND PROPERLY DISPOSED UNLESS OTHERWISE INDICATED.
- THE CONTRACTOR SHALL EXERCISE CARE TO PRESERVE THE NATURAL LANDSCAPE AT THE AREAS MARKED AS "TO REMAIN UNDISTURBED," AND SHALL CONDUCT HIS CONSTRUCTION OPERATION SO AS TO PREVENT ANY DAMAGE TO EXISTING FEATURES. EXCEPT WHERE CLEARING IS REQUIRED FOR PERMANENT WORK AND FOR EXCAVATION OPERATIONS, TREES, NATIVE SHRUBBERY, AND VEGETATION SHALL BE PROTECTED FROM DAMAGE WHICH MAY BE CAUSED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS AND EQUIPMENT.
- COORDINATE FINAL GRADING OF SWALES AND BERMS WITH OTHER LANDSCAPE FEATURES AS REQUIRED.
- A MINIMUM WALL HEIGHT OF 6 FEET SHALL BE PROVIDED BETWEEN EXISTING OR FUTURE RESIDENTIAL ZONES/DEVELOPMENTS AND COMMERCIAL ZONES.
- SHOULD THERE BE A CONFLICT IN DIMENSIONS OR MATERIAL TYPE ON DETAILS THAT ARE INCLUDED AS PART OF THESE DESIGN DOCUMENTS, THE MORE STRINGENT DESIGN AND REQUIREMENTS SHALL APPLY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL UTILITIES THAT ARE LOCATED WITHIN A "PROMONTORY AREA" PARKWAY SHALL HAVE A MINIMUM COVER OF FIVE (5) FEET.
- CONTRACTOR SHALL ENSURE THAT NO TRANSFORMERS, PEDESTALS, JUNCTION BOXES, VALVE BOXES, OR ANY OTHER OBSTRUCTION IS INSTALLED WITHIN THE LIMITS OF THE SIDEWALK.
- CONTRACTOR SHALL COORDINATE THE LOCATION AND FINAL PLACEMENT OF ALL ELECTRICAL TRANSFORMERS AND TELEPHONE PEDESTALS WITH THE DEVELOPER AND/OR DESIGNATED REPRESENTATIVE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ALSO VERIFY THAT NO CONFLICTS WILL EXIST BETWEEN ELECTRIC/ TELEPHONE/ CABLE FACILITIES AND PROPOSED DRIVEWAYS AND NEW DRAINAGE INLET BOXES.



NOTE:
CONTRACTOR SHALL ENSURE THAT NO TRANSFORMERS, PEDESTALS, JUNCTION BOXES, VALVE BOXES, OR ANY OTHER OBSTRUCTION IS INSTALLED WITHIN THE LIMITS OF THE SIDEWALK.

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CONTRACTOR SHALL COORDINATE THE LOCATION AND FINAL PLACEMENT OF ALL ELECTRICAL TRANSFORMERS AND TELEPHONE PEDESTALS WITH THE DEVELOPER AND/OR DESIGNATED REPRESENTATIVE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ALSO VERIFY THAT NO CONFLICTS WILL EXIST BETWEEN ELECTRIC/ TELEPHONE/ CABLE FACILITIES AND PROPOSED DRIVEWAYS AND NEW DRAINAGE INLET BOXES.

ROCK RETAINING WALL NOTE:
A ROCK RETAINING WALL SHALL BE REQUIRED WHEN THERE IS A DIFFERENCE OF 2' OR MORE BETWEEN LOT FINISHED GRADES OR BETWEEN SIDEWALK AND LOTS.

FLOOD ZONE INFORMATION:
ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL 480214-0022E, DATED JANUARY 3, 1997, THIS PROPERTY LIES IN FLOOD HAZARD ZONE "C".

NOTE:
SUBMITTAL OF C.I.O.M.R. ACCEPTED BY FEMA ON AUGUST 8, 2002, CASE NUMBER 02-08-479 R. COMMUNITY NO. 480214

MAINTENANCE OF DRAINAGE STRUCTURES OUTSIDE SUBDIVISION BOUNDARIES SHALL BE THE RESPONSIBILITY OF DEVELOPER UNTIL THEY ARE PLATTED, DEDICATED, AND ACCEPTED FOR MAINTENANCE BY THE CITY OF EL PASO WITH FUTURE SUBDIVISION PLATS.

LEGEND:

	NEW ASPHALT PAVEMENT. REFER TO DETAIL ON SHEET C-25.		2'-3' RETAINING ROCKWALL (BY BUILDER)
	NEW MORTARED ROCK RIP-RAP DESILTING BASIN. REFER TO DETAIL SHEET C-26.		HIGH CONTOUR
	3" COMPACTED SCREENING SURFACE.		LOW POINT
	NEW MORTARED ROCK RIP-RAP SWALE/SLOPE PROTECTION. REFER TO POND GRADING PLAN SHEET C-5.		DRAINAGE FLOW DIRECTION
	PROPOSED LANDSCAPED AREA. REFER TO LANDSCAPING AND IRRIGATION PLANS.		EXISTING DRAINAGE FLOW DIRECTION
	PROPOSED GABION DRAINAGE CHANNEL. REFER TO DETAIL ON SHEET C-18.		BLOCK NUMBER
	SUBDIVISION BOUNDARY LINE		LOT NUMBER
	ROW LINE		HORIZONTAL:VERTICAL SLOPE RATIO
	PROPERTY LINE		EXISTING CITY MONUMENT
	STREET CENTERLINE		PROPOSED CITY MONUMENT
	EASEMENT LINE		SECTION NUMBER
	EXISTING GROUND CONTOUR ELEVATION (INDEX)		SHEET NUMBER WHERE SECTION IS DRAWN
	EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE)		PROPOSED LOT FINISHED GROUND ELEVATION
	3' AND GREATER RETAINING ROCKWALL (BY DEVELOPER)		PROPOSED TOP OF CURB ELEVATION
			PROPOSED TOP OF PAVEMENT ELEVATION
			PROPOSED TOP OF GROUND ELEVATION
			PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25. (WHEEL CHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS)



WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:
CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION AND/OR RELOCATION OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK.

TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7988 SAN PAULI DR. EL PASO, TEXAS 79907 (915) 821-8480
AT&T INCORPORATED 11200 RELIQUANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	THE WARNER CABLE 420 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (T.E.S.S.) ANYWHERE IN TEXAS EL PASO, TEXAS 79904 (915) 757-5822	TRUCK GOVERNMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDD PASS DR. EL PASO, TEXAS 79904 (915) 757-5822

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
GRADING PLAN
(1 OF 2)

SHEET NO.
C-3
3 OF 49 SHEETS

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4392.28 (CITY DATUM). CONTOUR INTERVAL: ONE (1) FOOT.

DATE	REVISION	BY

QUANTUM
SURVEYING
CONSULTANTS
INCORPORATED
Texas Registered Engineering Firm F-005146

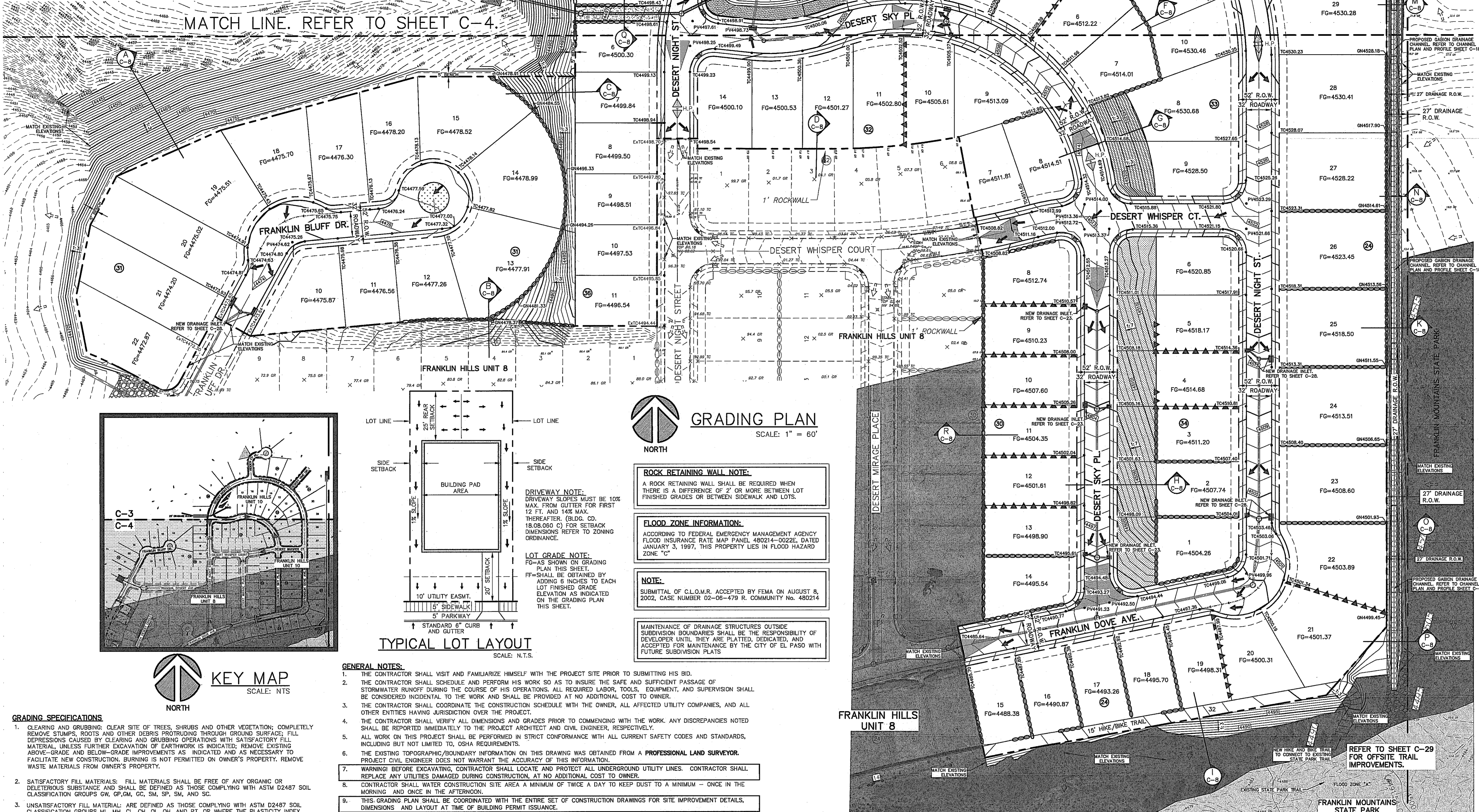
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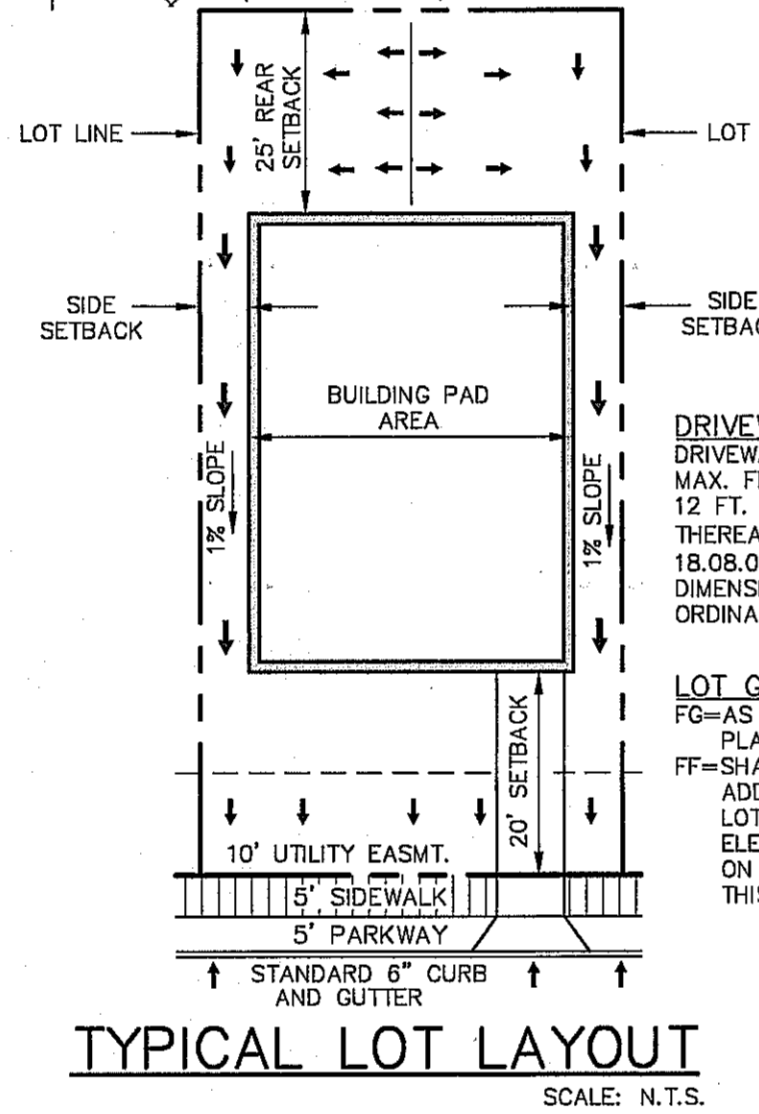
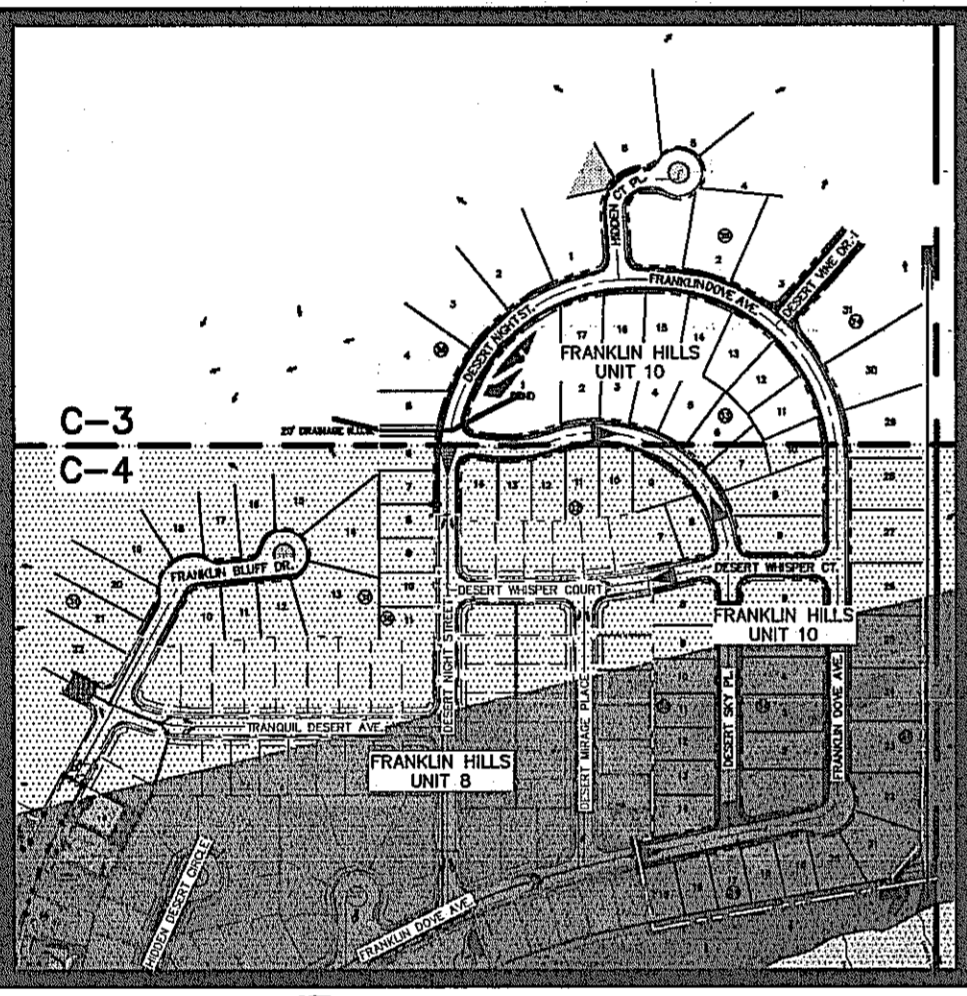
SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 10'
CONTOUR INTERVAL: 2'
DATE: OCTOBER-2018
DESIGN BY: M.A.S.
DRAWN BY: C.A.S.
CHKD BY: R.A.S.
APP'D BY: R.A.S.
JOB NO.: 1515

Oct. 26, 2018 1:07pm mmal C:\Active Drawings\1815 Franklin Hills Unit 10 Subdivision\Civil\City Comments\C-3-4 Detailed Grading Plan.dwg

MATCH LINE. REFER TO SHEET C-4.



REFERENCES - BENCHMARK, CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET, ELEVATION = 4362.20 (ONE (1) FOOT CONTOUR INTERVAL: ONE (1) FOOT), QUANTUM ENGINEERING INCORPORATED, 414 Executive Center Blvd, Suite 200 El Paso TX 79902, DESIGN BY: M.A.S., DRAWN BY: C.A.D., CHECK BY: R.A.G., APPROVED BY: J.S., PROJECT TITLE: FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS, EL PASO COUNTY, TEXAS, SHEET TITLE: GRADING PLAN (2 OF 2), SHEET NO.: C-4, 4 OF 49 SHEETS



GRADING PLAN SCALE: 1" = 60'

- ROCK RETAINING WALL NOTE: A ROCK RETAINING WALL SHALL BE REQUIRED WHEN THERE IS A DIFFERENCE OF 2' OR MORE BETWEEN LOT FINISHED GRADES OR BETWEEN SIDEWALK AND LOTS. FLOOD ZONE INFORMATION: ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL 480214-0022E, DATED JANUARY 3, 1997, THIS PROPERTY LIES IN FLOOD ZONE "C". NOTE: SUBMITTAL OF C.L.O.M.R. ACCEPTED BY FEMA ON AUGUST 8, 2002, CASE NUMBER 02-06-479 R. COMMUNITY No. 480214.

GRADING SPECIFICATIONS

- 1. CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE; FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL, UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED; REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION; BURNING IS NOT PERMITTED ON OWNER'S PROPERTY. 2. SATISFACTORY FILL MATERIALS: FILL MATERIALS SHALL BE FREE OF ANY ORGANIC OR DELETERIOUS SUBSTANCE AND SHALL BE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, CC, SM, SP, SC, AND SC. 3. UNSATISFACTORY FILL MATERIAL: ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS ML, MH, CL, CH, OL, OH, AND PT, OR WHERE THE PLASTICITY INDEX EXCEEDS 12. 4. EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED. 5. GROUND SURFACE PREPARATION FOR FILL: REMOVE VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIAL, OBSTRUCTIONS, AND DELETERIOUS MATERIAL FROM GROUND SURFACE UPON WHICH THE FILL IS TO BE PLACED. THE SURFACE SHALL THEN BE SCARIFIED TO A DEPTH OF AT LEAST 6-INCHES, AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD PREVENT UNIFORM COMPACTION. PLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1:1 VERTICAL TO 4 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE. AFTER PLOWING AND SCARIFYING FILL AREA, IT SHALL THEN BE DICED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLOTS, BROUGHT TO OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. 6. PLACEMENT OF FILL: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. PLACE FILL MATERIALS EVENLY ADJACENT TO SITE APPURTENANCES, PIPING, OR CONDUIT TO REQUIRED ELEVATIONS. PREVENT WEDGING ACTION OF BACKFILL AGAINST SITE APPURTENANCES OR DISPLACEMENT OF PIPING OR CONDUIT BY CARRYING MATERIAL UNIFORMLY AROUND SITE APPURTENANCES, PIPING, OR CONDUIT TO APPROXIMATELY SAME ELEVATION IN EACH LIFT. COMPACT SOIL TO NOT LESS THAN 95% OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D1557. 7. MOISTURE CONTROL: WHERE SUBGRADE OR LAYER OF SOIL MATERIAL MUST BE CONDITIONED FOR OPTIMUM MOISTURE BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. WATER CONTENT SHALL BE WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY. 8. QUALITY CONTROL: THE OWNER SHALL PROVIDE A GEOTECHNICAL ENGINEER TO PERFORM FIELD DENSITY TEST OF THE COMPACTION OF EACH LAYER OF FILL DENSITY TESTS SHALL BE TAKEN IN THE COMPACTED MATERIAL BELOW THE DISTURBED SURFACE. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE REQUIRED DENSITY HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL COSTS RESULTING FROM THE REQUIRED DENSITIES NOT MET. SUPERVISION BY THE GEOTECHNICAL ENGINEER DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

GENERAL NOTES:

- 1. THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING HIS BID. 2. THE CONTRACTOR SHALL SCHEDULE AND PERFORM HIS WORK SO AS TO INSURE THE SAFE AND SUFFICIENT PASSAGE OF STORMWATER RUNOFF DURING THE COURSE OF HIS OPERATIONS. ALL REQUIRED LABOR, TOOLS, EQUIPMENT, AND SUPERVISION SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER. 3. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE OWNER, ALL AFFECTED UTILITY COMPANIES, AND ALL OTHER ENTITIES HAVING JURISDICTION OVER THE PROJECT. 4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES PRIOR TO COMMENCING WITH THE WORK. ANY DISCREPANCIES NOTED SHALL BE REPORTED IMMEDIATELY TO THE PROJECT ARCHITECT AND CIVIL ENGINEER, RESPECTIVELY. 5. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN STRICT CONFORMANCE WITH ALL CURRENT SAFETY CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO, OSHA REQUIREMENTS. 6. THE EXISTING TOPOGRAPHIC/BOUNDARY INFORMATION ON THIS DRAWING WAS OBTAINED FROM A PROFESSIONAL LAND SURVEYOR. PROJECT CIVIL ENGINEER DOES NOT WARRANT THE ACCURACY OF THIS INFORMATION. 7. WARNING! BEFORE EXCAVATING, CONTRACTOR SHALL LOCATE AND PROTECT ALL UNDERGROUND UTILITY LINES. CONTRACTOR SHALL REPLACE ANY UTILITIES DAMAGED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO OWNER. 8. CONTRACTOR SHALL WATER CONSTRUCTION SITE AREA A MINIMUM OF TWICE A DAY TO KEEP DUST TO A MINIMUM - ONCE IN THE MORNING AND ONCE IN THE AFTERNOON. 9. THIS GRADING PLAN SHALL BE COORDINATED WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS FOR SITE IMPROVEMENT DETAILS, DIMENSIONS AND LAYOUT AT TIME OF BUILDING PERMIT ISSUANCE. 10. FILL MATERIAL FOR SITE GRADING AND BACKFILL MAY CONSIST OF ON SITE AND/OR IMPORTED MATERIALS IN COMPLIANCE WITH THE GEOTECHNICAL INVESTIGATION. 11. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING IMPROVEMENTS IN THE PROJECT AREA AND ITS VICINITY. ANY DAMAGES RESULTING FROM CONTRACTOR'S WORK SHALL BE REPAIRED TO ITS ORIGINAL CONDITION BY CONTRACTOR, AT NO COST TO THE OWNER. 12. CONTRACTOR SHALL INSURE THE FOLLOWING: ALL ACCESSIBLE ROUTES SHALL NOT EXCEED A RUNNING SLOPE GREATER THAN 1:20. NO WHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 IN ALL DIRECTIONS. NEW WHEELCHAIR RAMPS SHALL NOT EXCEED A SLOPE OF 1:11. 13. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW AND COORDINATE THE ENTIRE SET OF DRAWINGS AND PROJECT MANUAL TO ESTABLISH PROJECT COST. 14. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS DURING CONSTRUCTION ACTIVITY. 15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL AND ALL ENVIRONMENTAL FINES RESULTING FROM HIS/HER WORK AND SHALL HOLD THE OWNER HARMLESS IN SUCH CASES. 16. ALL EXISTING VEGETATION WITHIN THE GRADING LIMITS SHALL BE REMOVED AND PROPERLY DISPOSED UNLESS OTHERWISE INDICATED. 17. THE CONTRACTOR SHALL EXERCISE CARE TO PRESERVE THE NATURAL LANDSCAPE AT THE AREAS MARKED AS "TO REMAIN UNDISTURBED," AND SHALL CONDUCT HIS CONSTRUCTION OPERATION SO AS TO PREVENT ANY DAMAGE TO EXISTING FEATURES. EXCEPT WHERE CLEARING IS REQUIRED FOR PERMANENT WORK AND FOR EXCAVATION OPERATIONS, TREES, NATIVE SHRUBBERY, AND VEGETATION SHALL BE PROTECTED FROM DAMAGE WHICH MAY BE CAUSED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS AND EQUIPMENT. 18. COORDINATE FINAL GRADING OF SWALES AND BERMS WITH OTHER LANDSCAPE FEATURES AS REQUIRED. 19. A MINIMUM WALL HEIGHT OF 6 FEET SHALL BE PROVIDED BETWEEN EXISTING OR FUTURE RESIDENTIAL ZONES/DEVELOPMENTS AND COMMERCIAL ZONES. 20. SHOULD THERE BE A CONFLICT IN DIMENSIONS OR MATERIAL TYPE ON DETAILS THAT ARE INCLUDED AS PART OF THESE DESIGN DOCUMENTS, THE MORE STRINGENT DESIGN AND REQUIREMENTS SHALL APPLY. 21. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL UTILITIES THAT ARE LOCATED WITHIN A "PROMONTORY AREA" PARKWAY SHALL HAVE A MINIMUM COVER OF FIVE (5) FEET. 22. CONTRACTOR SHALL ENSURE THAT NO TRANSFORMERS, PEDESTALS, JUNCTION BOXES, VALVE BOXES, OR ANY OTHER OBSTRUCTION IS INSTALLED WITHIN THE LIMITS OF THE SIDEWALK. CONTRACTOR SHALL COORDINATE THE LOCATION AND FINAL PLACEMENT OF ALL ELECTRICAL TRANSFORMERS AND TELEPHONE PEDESTALS WITH THE DEVELOPER AND/OR DESIGNATED REPRESENTATIVE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ALSO VERIFY THAT NO CONFLICTS WILL EXIST BETWEEN ELECTRIC/ TELEPHONE/ CABLE FACILITIES AND PROPOSED DRIVEWAYS AND NEW DRAINAGE INLET BOXES.

LEGEND: PROPOSED ASPHALT PAVEMENT, PROPOSED MORTARED ROCK RIP-RAP DESILTING BASIN, 3" COMPACTED SCREENING SURFACE, NEW MORTARED ROCK RIP-RAP SWALE, PROPOSED LANDSCAPED AREA, PROPOSED GABION DRAINAGE CHANNEL, SUBDIVISION BOUNDARY LINE, ROW LINE, PROPERTY LINE, STREET CENTERLINE, EASEMENT LINE, EXISTING GROUND CONTOUR ELEVATION, EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE), 3' AND GREATER RETAINING ROCKWALL, PROPOSED 2'-3' RETAINING ROCKWALL, FINAL CONTOUR ELEVATION, HIGH POINT, LOW POINT, DRAINAGE FLOW DIRECTION, EXISTING DRAINAGE FLOW DIRECTION, BLOCK NUMBER, LOT NUMBER, HORIZONTAL:VERTICAL SLOPE RATIO, EXISTING CITY MONUMENT, PROPOSED CITY MONUMENT, SECTION NUMBER, SHEET NUMBER WHERE SECTION IS DRAWN, PROPOSED LOT FINISHED GROUND ELEVATION, PROPOSED TOP OF CURB ELEVATION, PROPOSED TOP OF PAVEMENT ELEVATION, PROPOSED TOP OF GROUND ELEVATION, PROPOSED HANDICAP RAMP, EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE), EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE), 4080

WARNING! BEFORE YOU DIG COORDINATION WITH UTILITIES: CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION AND/OR RELOCATION OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK. TEXAS GAS SERVICE, EL PASO ELECTRIC CO., EL PASO WATER UTILITIES, CITY OF EL PASO, AT&T INCORPORATED, TIME WARNER CABLE, TEXAS ELECTRIC SAFETY SYSTEM (DOW TESS), ANYWHERE IN TEXAS

Oct. 26, 2016 1:18pm C:\Users\brn\Documents\10 Subdivision\City\Comments\3rd City Submittal\C-3-C-4 Detailed Grading Plan.dwg

LEGEND:

- CONCRETE SLAB
- NEW ASPHALT PAVEMENT. REFER TO DETAIL ON SHEET C-25.
- 3" COMPACTED SCREENING SURFACE.
- NEW MORTARED ROCK RIP-RAP SWALE/SLOPE PROTECTION. REFER TO DETAILS ON SHEETS C-26 AND C-28.
- SUBDIVISION BOUNDARY LINE
- ROW LINE
- PROPERTY LINE
- STREET CENTERLINE
- EASEMENT LINE
- EXISTING GROUND CONTOUR ELEVATION (INDEX).
- EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE).
- FINAL CONTOUR ELEVATION
- HIGH POINT
- LOW POINT
- DRAINAGE FLOW DIRECTION
- BLOCK NUMBER
- LOT NUMBER
- 2'-3" ROCKWALL BY BUILDER
- 3' AND GREATER RETAINING ROCKWALL BY DEVELOPER
- HORIZONTAL:VERTICAL SLOPE RATIO
- EXISTING CITY MONUMENT
- NEW CITY MONUMENT
- STANDARD DETAIL NUMBER
- SHEET NUMBER WHERE STANDARD DETAIL IS DRAWN
- NEW LOT FINISHED GROUND ELEVATION.
- TC 15.52 NEW TOP OF CURB ELEVATION
- PV 89.83 NEW TOP OF PAVEMENT ELEVATION

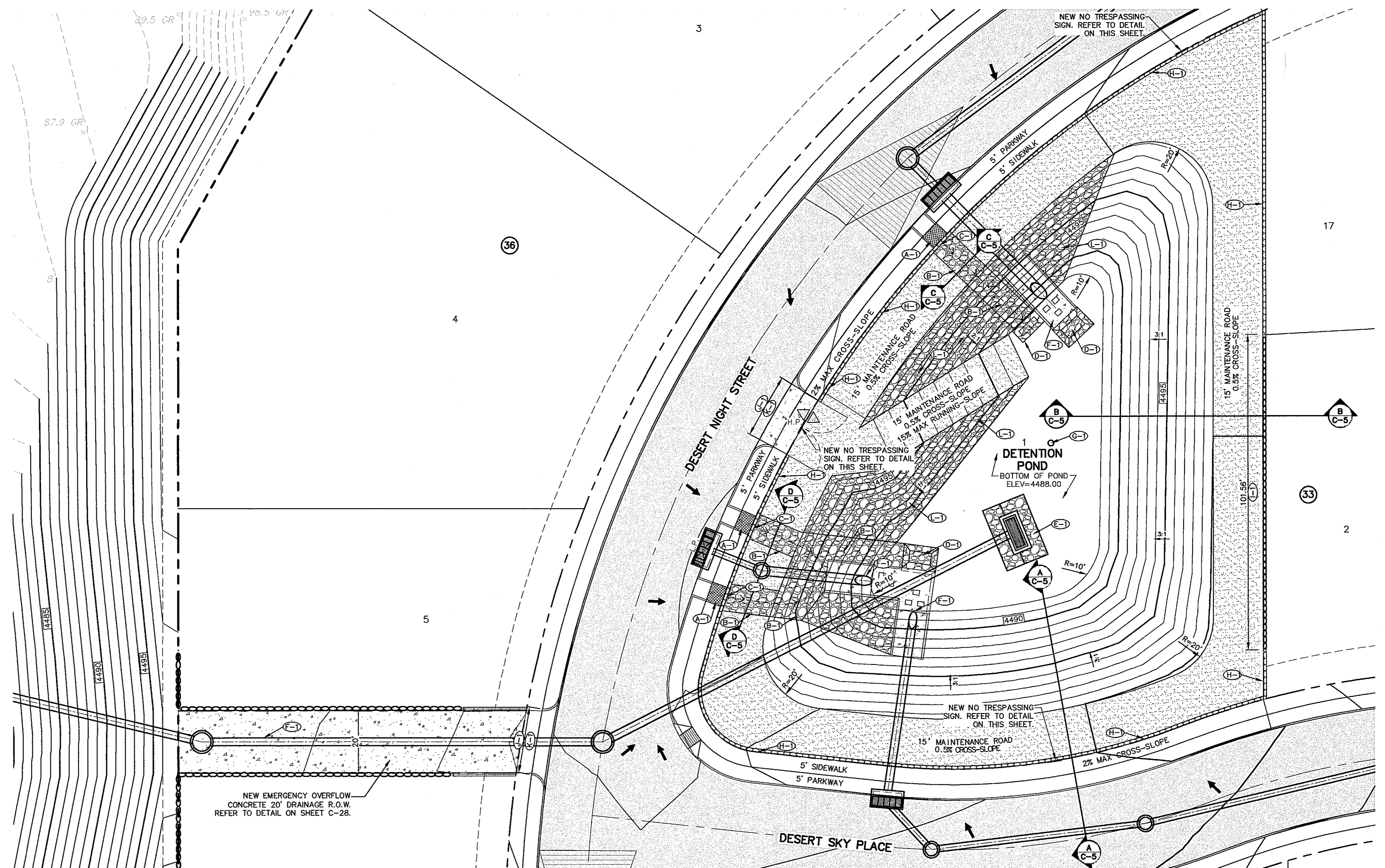
POND GRADING KEY NOTES:

- (A) NEW 5.5' WIDE EMERGENCY OVERFLOW FLUME. REFER TO DETAIL SHEET C-28.
- (B) NEW MORTARED ROCK RIP-RAP SWALE. REFER TO DETAIL ON SHEET C-28.
- (C) NEW ROCKWALL OPENINGS. REFER TO DETAIL ON SHEET C-26.
- (D) NEW DESILTING BASIN. REFER TO DETAIL ON SHEET C-26.
- (E) NEW CONCRETE TOWER STRUCTURE. REFER TO DETAIL SHEET C-26.
- (F) NEW CONCRETE APRONS WITH ENERGY DISSIPATORS. REFER TO DETAIL ON THIS SHEET/REFER TO SHEET C-29. ADD INFORMATION FOR CONCRETE APRON.
- (G) NEW 12" DEPTH GAUGE. REFER TO DETAIL SHEET C-25.
- (H) NEW 6" HIGH ROCKWALL. REFER TO DETAIL ON SHEET C-24. BY DEVELOPER.
- (I) NEW LIMITS OF RETAINING ROCKWALL (BY DEVELOPER). REFER TO STRUCTURAL PLANS FOR DETAILS.
- (J) NEW WROUGHT IRON FENCE ENTRY GATE. REFER TO DETAIL ON SHEET C-24.
- (K) NEW 20' WIDE CONCRETE DRIVEWAY AT POND ENTRANCE. REFER TO DETAIL ON SHEET C-25.
- (L) NEW MORTARED ROCK RIP-RAP FOR SLOPE PROTECTION REFER TO DETAIL ON SHEET C-28.

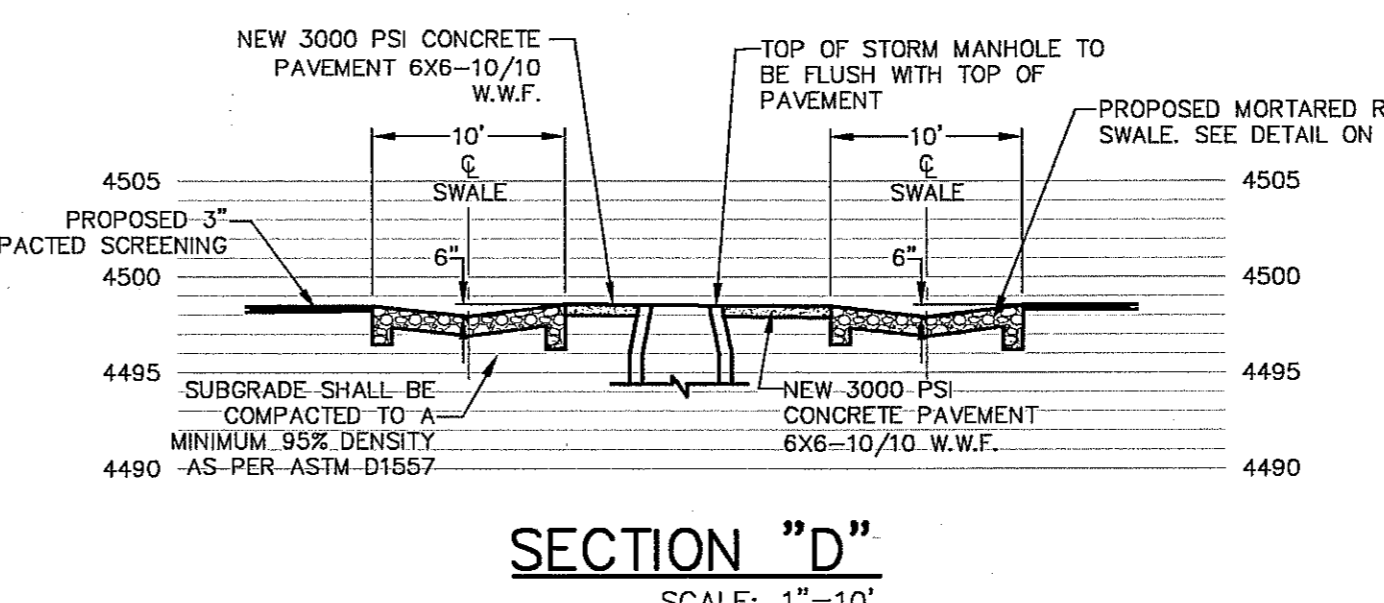
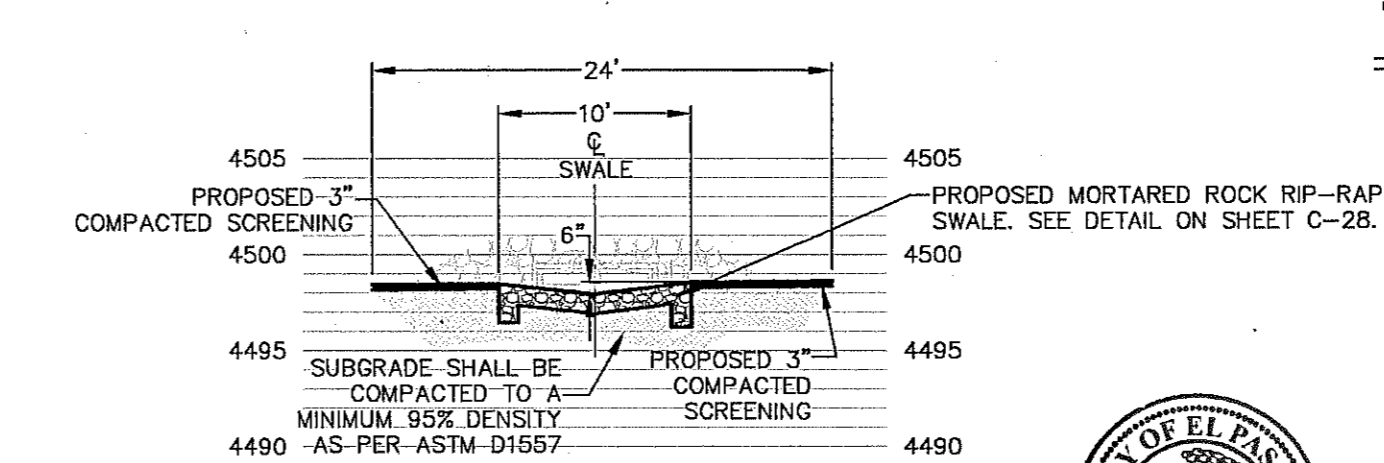
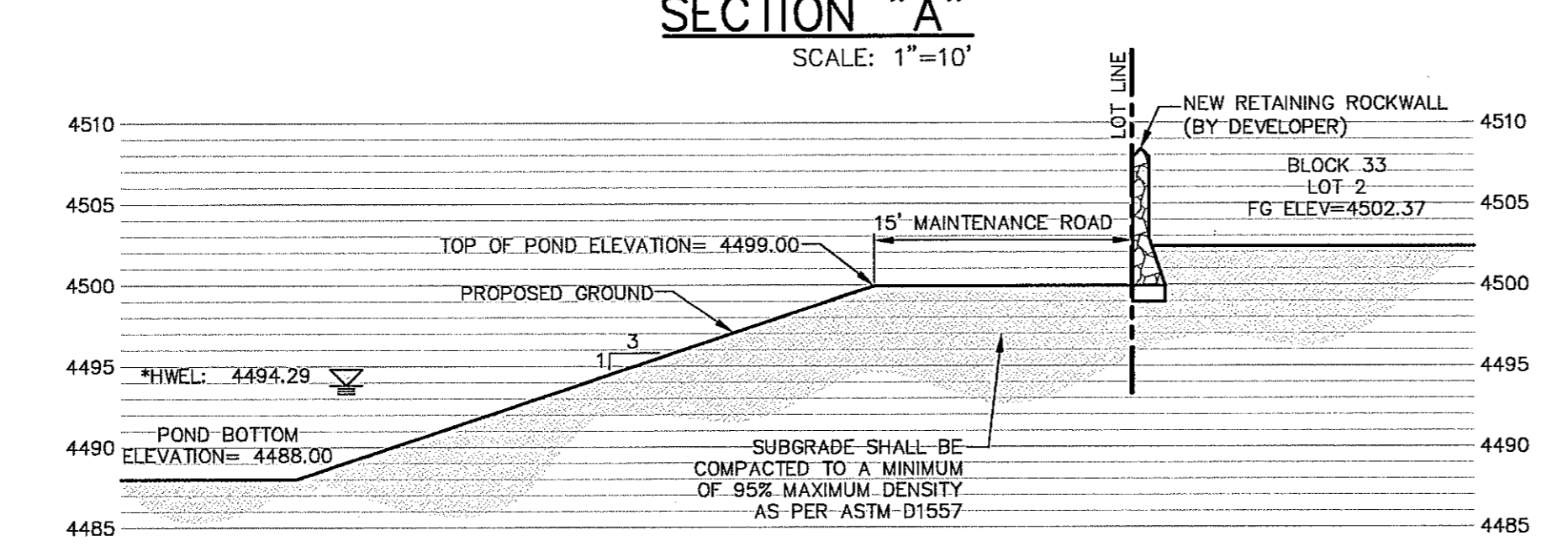
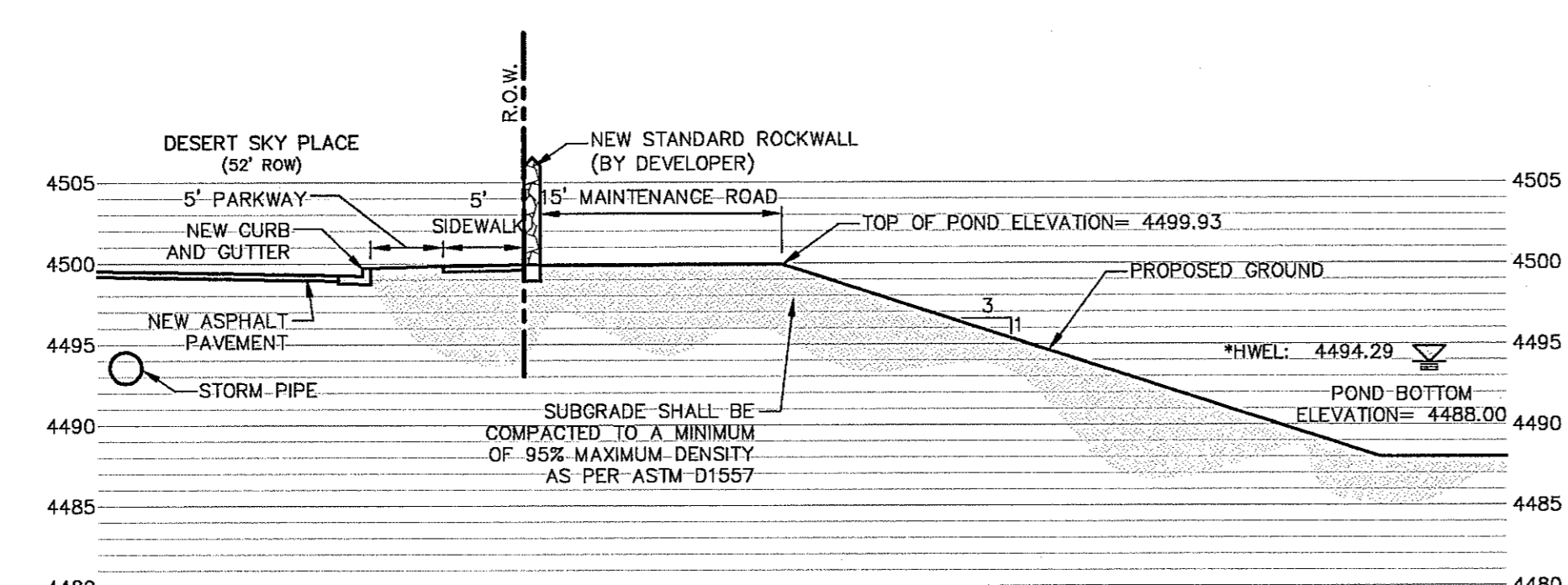
GENERAL NOTES:

- ALL JOINTS BETWEEN CAST-IN-PLACE AND PRECAST SECTIONS SHALL BE SEALED WITH MORTAR.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THEIR APPROVAL A MINIMUM OF THREE WEEKS PRIOR TO CONSTRUCTION.
- ALL FORMS SHALL BE WELL BRACED AND STRAIGHT.
- ALL STEEL SHALL BE FREE OF GREASE, SCALE AND DIRT.
- ALL CONCRETE SHALL CONFORM TO ASTM C94 AND SHALL REACH A MINIMUM STRENGTH OF 3000 P.S.I. AT 28 DAY TEST. CONCRETE SHALL NOT BE PLACED IN EXCESS OF 4" SLUMP WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615. ALL #3 BARS SHALL BE 40 GRADE STEEL, ALL #4 OR LARGER BARS SHALL BE GRADE 60.
- ALL BARS SHALL BE TIED AT EVERY INTERSECTION. ALL STEEL SHALL BE SUPPORTED TO PROHIBIT LATERAL OR VERTICAL MOVEMENT.
- CONCRETE POUR SHALL NOT BE STARTED UNLESS THE SITE TEMPERATURE IS ABOVE 40 DEGREES FAHRENHEIT AND RISING FOR THE NEXT 12 HOURS.
- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED STRUCTURES" (ACI 315).

ELEVATION (FEET)	CONTOUR AREA (FT ²)	CONTOUR AREA (AC)	CONTOUR VOLUME (AC-FT)
4497.00	15249.21	0.35	1.94
4496.00	13769.89	0.32	1.61
4495.00	12369.15	0.28	1.31
4494.81	12116.47	0.28	1.26
4494.29*	11424.94	0.26	1.13*
4494.00	11039.28	0.25	1.04
4493.00	9777.71	0.22	0.80
4492.00	8584.64	0.20	0.59
4491.00	7455.00	0.17	0.41
4490.00	6391.71	0.15	0.25
4489.00	5404.77	0.12	0.11
4488.00	4491.46	0.10	0.00

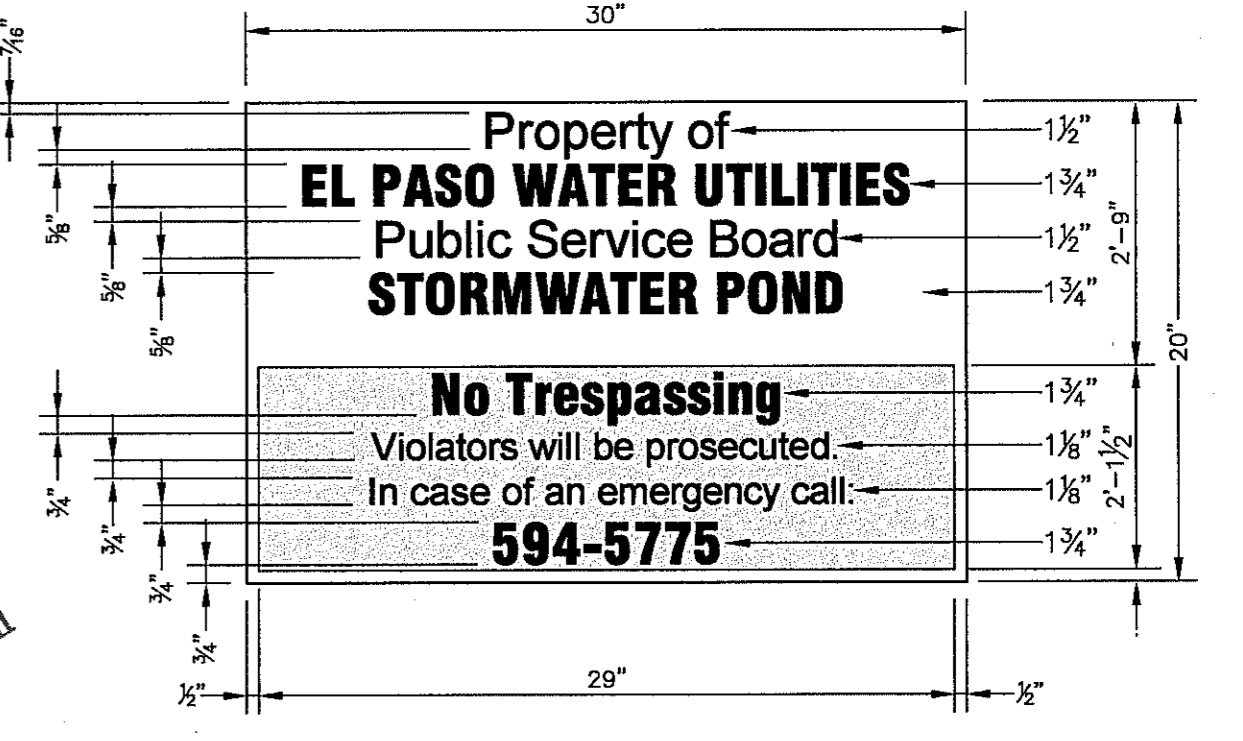


POND GRADING PLAN
SCALE: 1" = 20'



GENERAL NOTES:

- SIGN MATERIAL TO BE 16 GAUGE GALVANIZED SHEET METAL.
- TOP PART OF SIGN SHALL SHOW BLACK LETTERS ON A WHITE BACKGROUND.
- BOTTOM PART OF SIGN SHALL SHOW WHITE LETTERS ON A BLACK BACKGROUND.



WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:

CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION AND/OR RELOCATION OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK.

TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7989 SAN PABLO DR. EL PASO, TEXAS 79907 (915) 621-8480
AT&T INCORPORATED 11200 PELLERANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 400 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (INC. TEXAS) ANYWHERE IN TEXAS 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 757-9922	

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
POND GRADING PLAN

SHEET NO.
C-5
5 OF 49 SHEETS

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM). CONTOUR INTERVAL: ONE (1) FOOT.

DATE
10/20/2016

BY
R.A.G.

REVISION

DESIGNER
ROBERT A. GONZALES

DRAWN BY
M.A.G.

CHECKED BY
R.A.G.

APP'D BY
R.A.G.

JOB NO.
1515

SCALE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 10'

DATE:
OCTOBER-2016

DESIGN:
M.A.G.

DRAWN:
M.A.G.

CHECKED:
R.A.G.

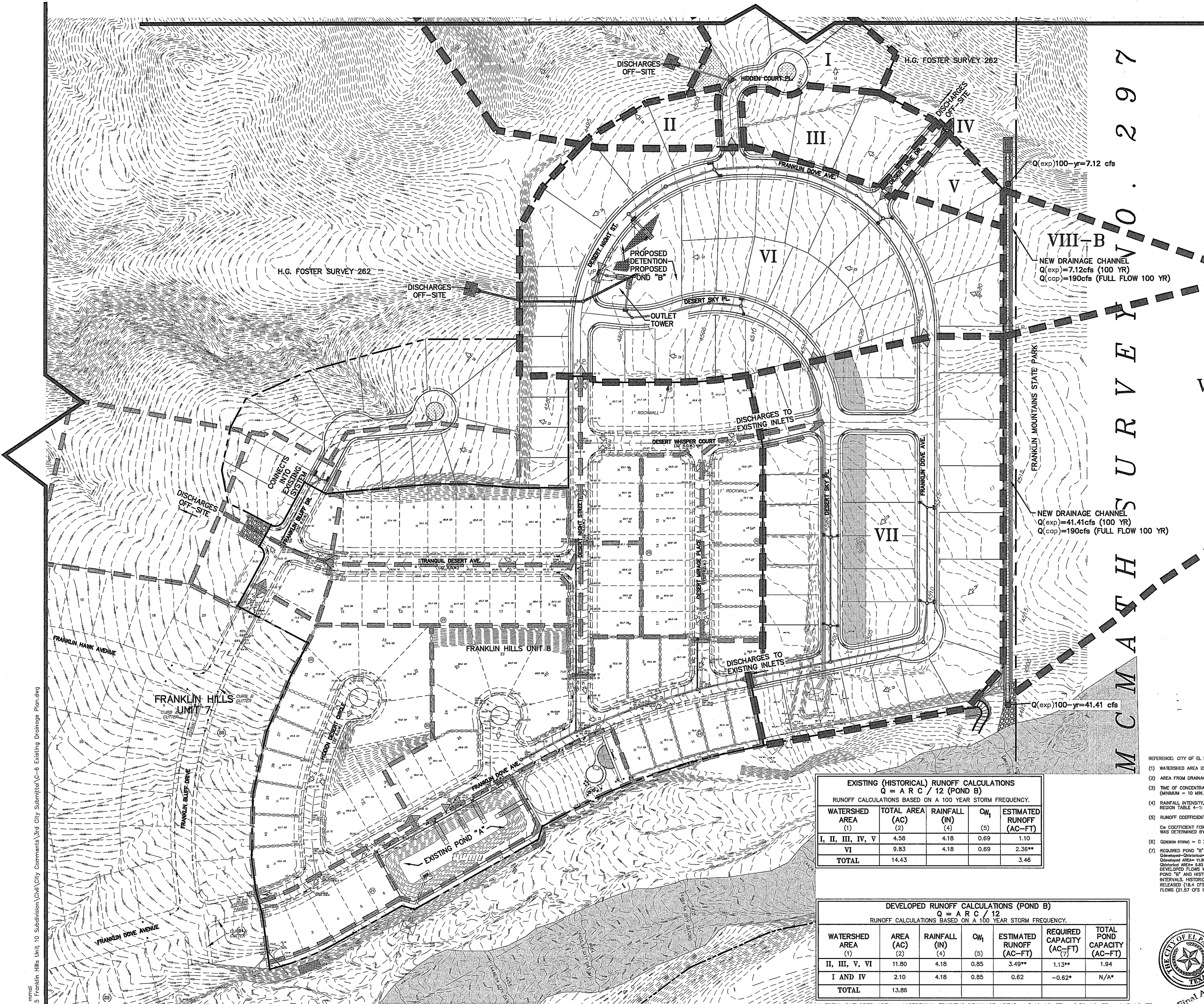
APP'D:
R.A.G.

JOB NO.:
1515

SEAL:
STATE OF TEXAS
ROBERT A. GONZALES
PROFESSIONAL ENGINEER
09920
INCORPORATED
10/20/16

QUANTUM
414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7372
F 915.532.7373
Texas Registered Engineering Firm F-005146

Nov 09 2016 1:44pm
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DRAINAGE CALCULATIONS (EXISTING)
Q100 = C I A

STORM DRAINAGE CALCULATIONS BASED ON A 100 YEAR STORM FREQUENCY

DRAINAGE AREA	AREA (AC)	Cw	Tc	I10	I100	Q10	Q100
I	1.96	0.69	10	3.18	5.37	4.30	7.25
II	0.57	0.69	10	3.18	5.37	1.25	2.11
III	1.37	0.69	10	3.18	5.37	3.01	5.09
IV	0.14	0.69	10	3.18	5.37	0.31	0.51
V	0.54	0.69	10	3.18	5.37	1.18	2.01
VI	9.83	0.69	10	3.18	5.37	21.57	36.45

NOTE:
CONTRACTOR SHALL ENSURE THAT NO TRANSFORMERS, PEDESTALS, JUNCTION BOXES, VALVE BOXES, OR ANY OTHER OBSTRUCTION IS INSTALLED WITHIN THE LIMITS OF THE SIDEWALK.

NOTE:
CONTRACTOR SHALL COORDINATE THE LOCATION AND FINAL PLACEMENT OF ALL ELECTRICAL TRANSFORMERS AND TELEPHONE PEDESTALS WITH THE DEVELOPER AND/OR DESIGNATED REPRESENTATIVE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ALSO VERIFY THAT NO CONFLICTS WILL EXIST BETWEEN ELECTRIC/ TELEPHONE/ CABLE FACILITIES AND PROPOSED DRIVEWAYS AND NEW DRAINAGE INLET BOXES.

DRAINAGE CALCULATIONS (EXISTING)
Q100 = C I A

STORM DRAINAGE CALCULATIONS BASED ON A 100 YEAR STORM FREQUENCY.

WATERSHED AREA	AREA (AC)	Qw (s)	tc (3) (min)	h100 (4) (in/hr)	Q100 (5) (CFS)
VIII-A	11.17	0.69	10	5.3734	41.41
VIII-B	1.92	0.69	10	5.3734	7.12

EXISTING (HISTORICAL) RUNOFF CALCULATIONS
Q = A R C / 12 (EXISTING POND A)

RUNOFF CALCULATIONS BASED ON A 100 YEAR STORM FREQUENCY.

WATERSHED AREA	TOTAL AREA (AC)	RAINFALL (IN)	Qw1	ESTIMATED RUNOFF (AC-FT)
(1)	(2)	(4)	(5)	(6)
VII	9.65	4.18	0.85	2.85***

*** AREA DESIGNED PREVIOUSLY TO BE CONVEYED TO EXISTING PONDING AREA. REFER TO FRANKLIN HILLS UNIT 8 RECORD DRAWINGS DATED MAY 19, 2015.

LEGEND:

- I EXISTING DRAINAGE AREA LABEL
- EXISTING DRAINAGE AREA LIMITS
- 3885 EXISTING CONTOURS
- H.P. EXISTING HIGH POINT
- L.P. EXISTING LOW POINT
- EXISTING DRAINAGE FLOW DIRECTION

FLOOD ZONE INFORMATION:
ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL 480214-0002Z, DATED JANUARY 3, 1997, THIS PROPERTY LIES IN FLOOD HAZARD ZONE "C"

NOTE:
SUBMITTAL OF C.L.O.M.R. ACCEPTED BY FEMA ON AUGUST 8, 2002, CASE NUMBER 02-05-479 R. COMMUNITY No. 480214

- REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS
- WATERSHED AREA IDENTIFICATION
 - AREA FROM DRAINAGE PLAN
 - TIME OF CONCENTRATION: TO = T (OVERLAND) + T (GUTTER) (MINIMUM = 10 MIN.)
 - RAINFALL INTENSITY, 100 YEAR STORM = CENTRAL DRAINAGE REGION TABLE 4-1: CENTRAL INTENSITY EQUATIONS.
 - RUNOFF COEFFICIENT
Cw COEFFICIENT FOR HISTORICAL (EXISTING) 0.69 AND PROPOSED 0.85 WAS DETERMINED BY THE CITY OF EL PASO PLANNING DEPARTMENT
 - DESIGN STORM = C X A X I (DESIGN STORM)
 - REQUIRED POND "B" CAPACITY IS:
Developed=Qdetention-Q Required Capacity of 1.13 AC-FT
Developed Area= 1.92 as (2.38 AC-FT)
Detention Area= 0.83 as (2.38 AC-FT)
DEVELOPED FLOWS WILL BE BE RETAINED IN THE PROPOSED DETENTION POND "B" AND HISTORICAL FLOWS WILL BE RELEASED AT CERTAIN INTERVALS. HISTORICAL FLOWS (POST DEVELOPMENT) ALLOWED TO BE RELEASED (1.4 CFS (10-YR) ARE LESS THAN PRE-DEVELOPMENT FLOWS (21.57 CFS 10-YR).

EXISTING (HISTORICAL) RUNOFF CALCULATIONS
Q = A R C / 12 (POND B)

RUNOFF CALCULATIONS BASED ON A 100 YEAR STORM FREQUENCY.

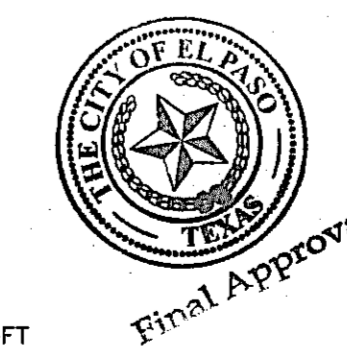
WATERSHED AREA	TOTAL AREA (AC)	RAINFALL (IN)	Qw1	ESTIMATED RUNOFF (AC-FT)
(1)	(2)	(4)	(5)	(6)
I, II, III, IV, V	4.58	4.18	0.69	1.10
VI	9.83	4.18	0.69	2.36**
TOTAL	14.43			3.46

DEVELOPED RUNOFF CALCULATIONS (POND B)
Q = A R C / 12

RUNOFF CALCULATIONS BASED ON A 100 YEAR STORM FREQUENCY.

WATERSHED AREA	AREA (AC)	RAINFALL (IN)	Qw1	ESTIMATED RUNOFF (AC-FT)	REQUIRED CAPACITY (AC-FT)	TOTAL POND CAPACITY (AC-FT)
(1)	(2)	(4)	(5)	(6)	(7)	(8)
II, III, V, VI	11.80	4.18	0.85	3.49**	1.13**	1.94
I AND IV	2.10	4.18	0.85	0.62	-0.62*	N/A*
TOTAL	13.86					

** TOTAL DEVELOPED AREA - HISTORICAL (EXISTING DRAINAGE AREA) = 3.49 AC-FT - 2.36 AC-FT = 1.13 AC-FT



OVERALL/EXISTING DRAINAGE PLAN
SCALE: 1" = 100'

PROJECT TITLE
FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
OVERALL/EXISTING DRAINAGE PLAN

SHEET NO.
C-6
6 OF 49 SHEETS

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

BY
DATE

REVISION

QUANTUM
ENGINEERING
INCORPORATED
Texas Registered Engineering Firm F-005146

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373

THE SEAL APPEARS ON THIS DOCUMENT AS AUTHORIZED BY ROBERT A. GONZALES, PROFESSIONAL ENGINEER, NO. 89920, STATE OF TEXAS. THE NOTATION TO THE RIGHT OF THE SEAL IS AN OFFICIAL STATEMENT OF THE PRACTICE ACT.

SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 30'
CONTOUR INTERVAL: 10'

DATE: OCTOBER-2016
DESIGN BY: M.A.G.
DRAWN BY: GADD
CHKD BY: R.A.G.
APP'D BY: R.A.G.
JOB NO.: 1515

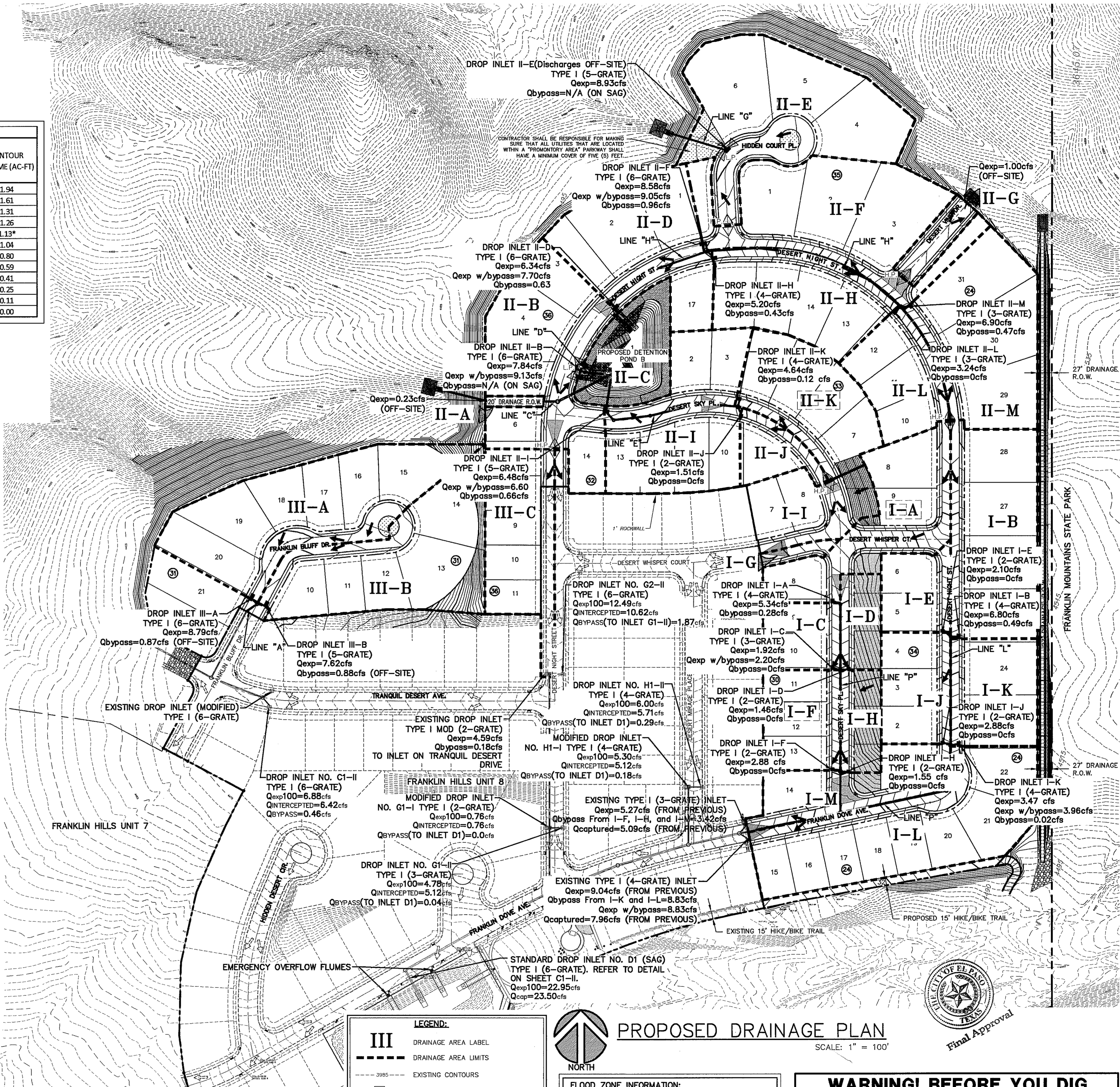
04_26_2016 1:36pm
C:\Users\m\Documents\City Comments\C-6 Existing Drainage Plan.dwg

DRAINAGE CALCULATIONS (DEVELOPED)							
Q100 = C1A							
STORM DRAINAGE CALCULATIONS BASED ON A 100 YEAR STORM FREQUENCY							
DRAINAGE AREA	AREA (AC)	Cw	Tc	I10	I100	Q10 (CFS)	Q100 (CFS)
I-A	1.17	0.85	10	3.18	5.37	3.16	5.34
I-B	1.49	0.85	10	3.18	5.37	4.03	6.80
I-C	0.42	0.85	10	3.18	5.37	1.14	1.92
I-D	0.32	0.85	10	3.18	5.37	0.86	1.46
I-E	0.46	0.85	10	3.18	5.37	1.24	2.10
I-F	0.63	0.85	10	3.18	5.37	1.70	2.88
I-G	0.08	0.85	10	3.18	5.37	0.23	0.38
I-H	0.34	0.85	10	3.18	5.37	0.92	1.55
I-I	0.64	0.85	10	3.18	5.37	1.73	2.93
I-J	0.63	0.85	10	3.18	5.37	1.70	2.88
I-K	0.76	0.85	10	3.18	5.37	2.05	3.47
I-L	1.93	0.85	10	3.18	5.37	5.22	8.81
I-M	0.75	0.85	10	3.18	5.37	2.03	3.42
II-A	0.05	0.85	10	3.18	5.37	0.14	0.23
II-B	1.72	0.85	10	3.18	5.37	4.64	7.84
II-C	0.68	0.5	10	3.18	5.37	1.08	1.83
II-D	1.39	0.85	10	3.18	5.37	3.76	6.34
II-E	1.96	0.85	10	3.18	5.37	5.30	8.95
II-F	1.88	0.85	10	3.18	5.37	5.08	8.58
II-G	0.22	0.85	10	3.18	5.37	0.59	1.00
II-H	1.14	0.85	10	3.18	5.37	3.08	5.20
II-I	1.42	0.85	10	3.18	5.37	3.84	6.48
II-J	0.33	0.85	10	3.18	5.37	0.89	1.51
II-K	1.02	0.85	10	3.18	5.37	2.75	4.64
II-L	0.71	0.85	10	3.18	5.37	1.92	3.24
II-M	1.51	0.85	10	3.18	5.37	4.09	6.90
III-A	1.93	0.85	10	3.18	5.37	5.21	8.79
III-B	1.67	0.85	10	3.18	5.37	4.51	7.61
III-C	1.01	0.85	10	3.18	5.37	2.72	4.59

POND CAPACITY TABLE			
ELEVATION (FEET)	CONTOUR AREA (FT^2)	CONTOUR AREA (AC)	CONTOUR VOLUME (AC-FT)
4497.00	15249.21	0.35	1.94
4496.00	13769.89	0.32	1.61
4495.00	12369.15	0.28	1.31
4494.81	12116.47	0.28	1.26
4494.29*	11424.94	0.26	1.13*
4494.00	11039.28	0.25	1.04
4493.00	9777.71	0.22	0.80
4492.00	8584.64	0.20	0.59
4491.00	7455.00	0.17	0.41
4490.00	6391.71	0.15	0.25
4489.00	5404.77	0.12	0.11
4488.00	4491.46	0.10	0.00

* HIGH WATER ELEVATION = 4494.29

INLET SUMMARY TABLE				
INLET ID	INLET TYPE	Q EXPECTED 100 YR (CFS)	Q INTERCEPTED (CFS)	Q BY PASS (CFS)
I-A	DROP INLET TYPE I (4-GRATE)	5.34	5.06	0.28 (TO INLET I-C)
I-C	DROP INLET TYPE I (3-GRATE)	2.20	2.20	0.0 (TO INLET I-F)
I-D	DROP INLET TYPE I (2-GRATE)	1.46	1.46	0.0 (TO INLET I-H)
I-F	DROP INLET TYPE I (2-GRATE)	2.88	2.88	0.0 (TO EXISTING INLET)
I-H	DROP INLET TYPE I (2-GRATE)	1.55	1.55	0.0 (TO EXISTING INLET)
I-E	DROP INLET TYPE I (2-GRATE)	2.10	2.10	0.0 (TO INLET I-J)
I-B	DROP INLET TYPE I (4-GRATE)	6.80	6.31	0.49 (TO INLET I-K)
I-J	DROP INLET TYPE I (2-GRATE)	2.88	2.88	0.0 (TO EXISTING INLET)
I-K	DROP INLET TYPE I (4-GRATE)	3.96	3.94	0.02 (TO EXISTING INLET)
II-J	DROP INLET TYPE I (2-GRATE)	1.51	1.51	0.0 (TO INLET II-I)
II-K	DROP INLET TYPE I (4-GRATE)	4.64	4.52	0.12 (TO INLET II-I)
II-I	DROP INLET TYPE I (5-GRATE)	6.60	5.94	0.66 (TO INLET II-B)
II-L	DROP INLET TYPE I (3-GRATE)	3.24	3.24	0.0 (TO INLET II-H)
II-M	DROP INLET TYPE I (3-GRATE)	6.90	6.43	0.47 (TO INLET II-F)
II-H	DROP INLET TYPE I (4-GRATE)	5.20	4.77	0.43 (TO INLET II-D)
II-F	DROP INLET TYPE I (4-GRATE)	9.05	8.09	0.96 (TO INLET II-D)
II-D	DROP INLET TYPE I (6-GRATE)	7.70	7.07	0.63 (TO INLET II-B)
II-B	DROP INLET TYPE I (6-GRATE)	9.13	9.13	N/A (ON SAG EMERGENCY OVER FLOW FLUMES)
II-E	DROP INLET TYPE I (5-GRATE)	8.93	8.93	N/A (ON SAG)
III-A	DROP INLET TYPE I (6-GRATE)	8.79	7.92	0.87 (DISCHARGES OFF-SITE)
III-B	DROP INLET TYPE I (5-GRATE)	7.62	6.74	0.88 (DISCHARGES OFF-SITE)



NOTE:
CONTRACTOR SHALL ENSURE THAT NO TRANSFORMERS, PEDESTALS, JUNCTION BOXES, VALVE BOXES, OR ANY OTHER OBSTRUCTION IS INSTALLED WITHIN THE LIMITS OF THE SIDEWALK.

NOTE:
CONTRACTOR SHALL COORDINATE THE LOCATION AND FINAL PLACEMENT OF ALL ELECTRICAL TRANSFORMERS AND TELEPHONE PEDESTALS WITH THE DEVELOPER AND/OR DESIGNATED REPRESENTATIVE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ALSO VERIFY THAT NO CONFLICTS WILL EXIST BETWEEN ELECTRICAL/ TELEPHONE/ CABLE FACILITIES AND PROPOSED DRIVEWAYS AND NEW DRAINAGE INLET BOXES.

LEGEND:

- III DRAINAGE AREA LABEL
- DRAINAGE AREA LIMITS
- EXISTING CONTOURS
- FINAL CONTOUR ELEVATION
- H.P. HIGH POINT
- L.P. LOW POINT
- PROPOSED DRAINAGE FLOW DIRECTION
- EXISTING DRAINAGE FLOW DIRECTION
- ⊗ BLOCK NUMBER
- X LOT NUMBER



PROPOSED DRAINAGE PLAN
SCALE: 1" = 100'

FLOOD_ZONE_INFORMATION:
ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL 480214-0022E, DATED JANUARY 3, 1997, THIS PROPERTY LIES IN FLOOD HAZARD ZONE "C"

NOTE:
SUBMITTAL OF C.L.O.M.R. ACCEPTED BY FEMA ON AUGUST 8, 2002, CASE NUMBER 02-06-479 R. COMMUNITY NO. 480214

WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:
CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION AND/OR RELOCATION OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK.

TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7908 SAN PAULO DR. EL PASO, TEXAS 79907 (915) 621-6480
AT&T INCORPORATED 11200 PELICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TME WARNER CABLE SYSTEM (ON TEXAS) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 757-5922	TEXAS EXCAVATION SAFETY SYSTEM (ON TEXAS) ANYWHERE IN TEXAS (800) 344-8377	

PROJECT TITLE
FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
PROPOSED DRAINAGE PLAN

SHEET NO.
C-7

7 OF 49 SHEETS

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CY DATUM). CONTOUR INTERVAL: ONE (1) FOOT.

DATE
REVISION

BY

QUANTUM
414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373
Texas Registered Engineering Firm F-005146

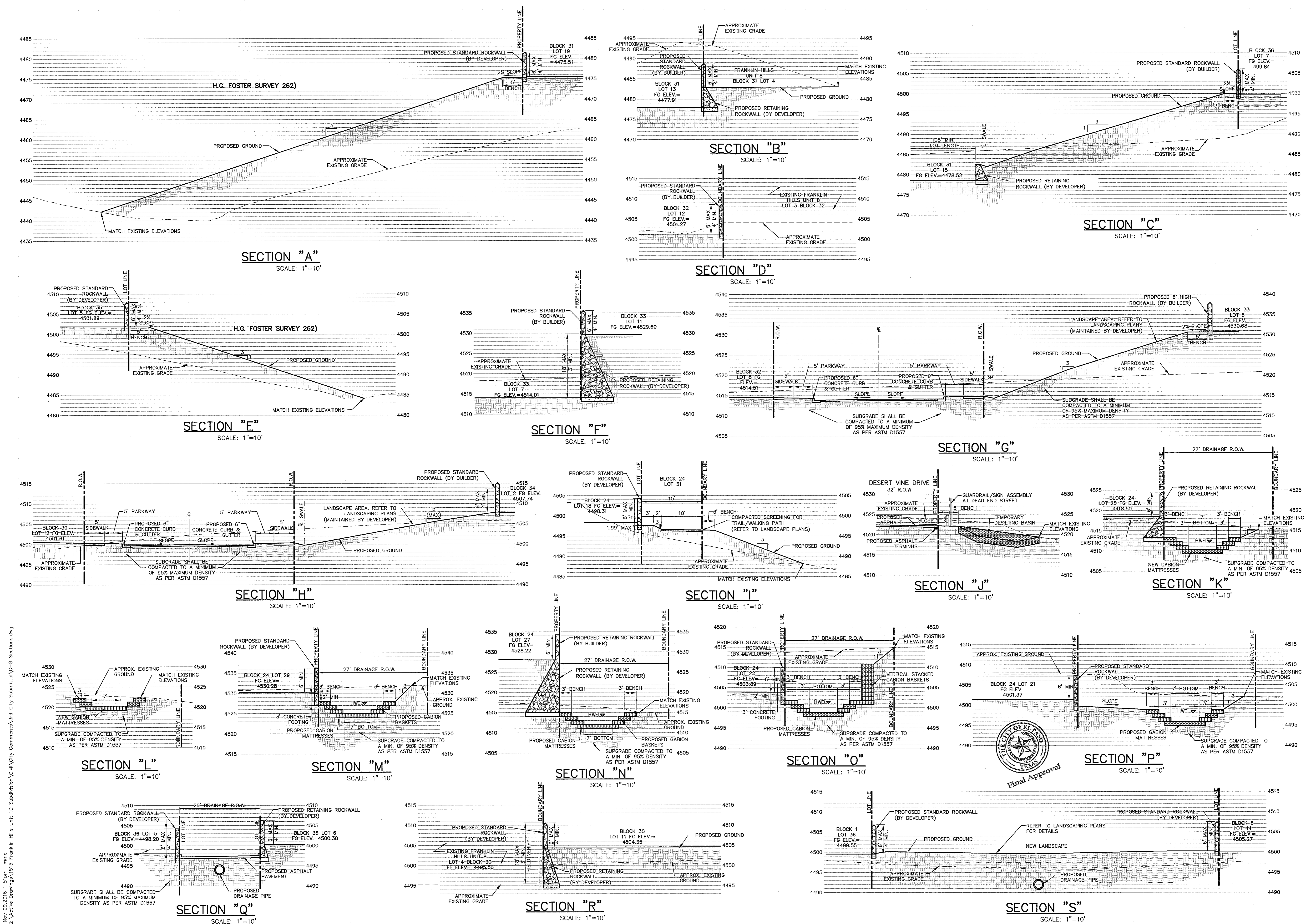
DESIGN BY: M.A.G.
DRAWN BY: C.A.D.
CHKD BY: R.A.G.
APP'D BY: R.A.G.
JOB NO.: 1515

SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 100'
CONTOUR INTERVAL: N/A

DATE: OCTOBER-2016
DESIGN BY: M.A.G.
DRAWN BY: C.A.D.
CHKD BY: R.A.G.
APP'D BY: R.A.G.
JOB NO.: 1515

UTILITY INFORMATION:
THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.

SEAL:
ROBERT A. GONZALES
REGISTERED PROFESSIONAL ENGINEER
NO. 89920
EXPIRES 12/31/2022



PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
 EL PASO COUNTY, TEXAS

SHEET TITLE
 TYPICAL SECTIONS

SHEET NO.
C-8
 8 OF 49 SHEETS

REFERENCES - BENCHMARK
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM) CONTOUR INTERVAL: ONE (1) FOOT

DATE
 10/19/16

REVISION

BY

DESIGN BY: M.A.S.
CHECKED BY: C.A.G.
APPROVED BY: R.A.G.
JOB NO.: 1515

SCALE: 1"=10'

HORIZONTAL: 1"=10'

VERTICAL: 1"=10'

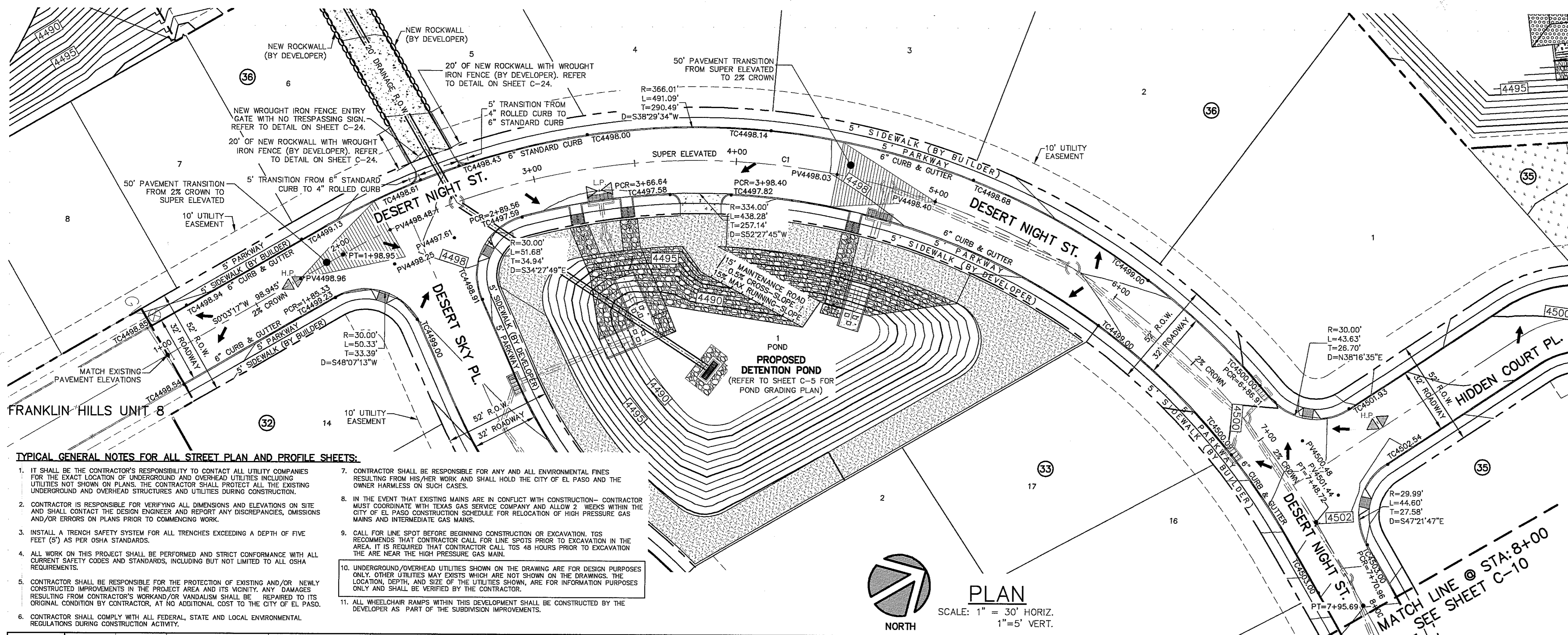
CONTOUR INTERVAL: 1' 0"

DATE: OCTOBER 2016

DESIGN BY: M.A.S.
CHECKED BY: C.A.G.
APPROVED BY: R.A.G.
JOB NO.: 1515

THE SEAL APPEARING ON THIS DRAWING IS THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS. NO ALTERATION OF A SEAL OR NUMBER OF A SEAL OR ANY INFORMATION TO BE OBTAINED FROM THIS SEAL IS AN OFFENSE UNDER THE PRACTICE ACT.

QUANTUM
 engineering
 incorporated
 Texas Registered Engineering Firm F-005146
 414 Executive Center Blvd
 Ste 200 B Paso TX 79902
 P 915.532.7372
 F 915.532.7373



TYPICAL GENERAL NOTES FOR ALL STREET PLAN AND PROFILE SHEETS:

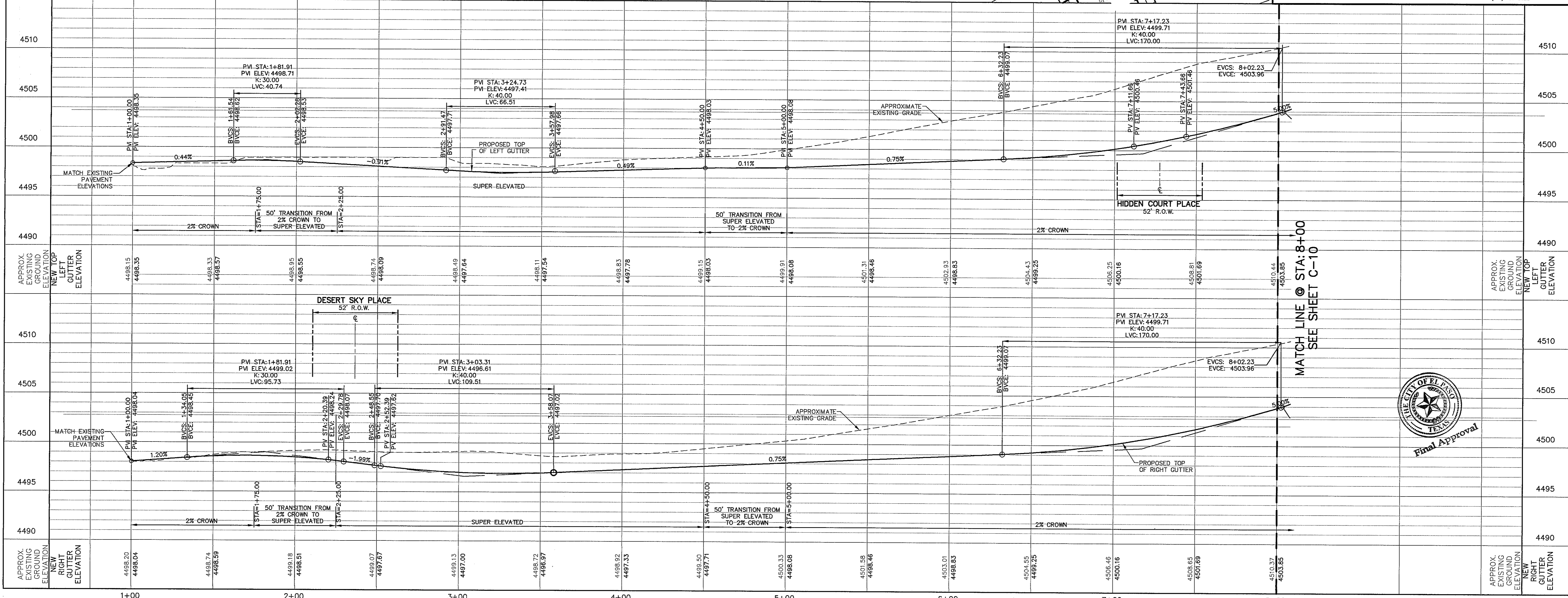
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES FOR THE EXACT LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES INCLUDING UTILITIES NOT SHOWN ON PLANS. THE CONTRACTOR SHALL PROTECT ALL THE EXISTING UNDERGROUND AND OVERHEAD STRUCTURES AND UTILITIES DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS ON SITE AND SHALL CONTACT THE DESIGN ENGINEER AND REPORT ANY DISCREPANCIES, OMISSIONS AND/OR ERRORS ON PLANS PRIOR TO COMMENCING WORK.
- INSTALL A TRENCH SAFETY SYSTEM FOR ALL TRENCHES EXCEEDING A DEPTH OF FIVE FEET (5') AS PER OSHA STANDARDS.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED AND STRICT CONFORMANCE WITH ALL CURRENT SAFETY CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO ALL OSHA REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND/OR NEWLY CONSTRUCTED IMPROVEMENTS IN THE PROJECT AREA AND ITS VICINITY. ANY DAMAGES RESULTING FROM CONTRACTOR'S WORK AND/OR WANDALISM SHALL BE REPAIRED TO ITS ORIGINAL CONDITION BY CONTRACTOR, AT NO ADDITIONAL COST TO THE CITY OF EL PASO.
- CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS DURING CONSTRUCTION ACTIVITY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ENVIRONMENTAL FINES RESULTING FROM HIS/HER WORK AND SHALL HOLD THE CITY OF EL PASO AND THE OWNER HARMLESS IN SUCH CASES.
- IN THE EVENT THAT EXISTING MAINS ARE IN CONFLICT WITH CONSTRUCTION- CONTRACTOR MUST COORDINATE WITH TEXAS GAS SERVICE COMPANY AND ALLOW 2 WEEKS WITHIN THE CITY OF EL PASO CONSTRUCTION SCHEDULE FOR RELOCATION OF HIGH PRESSURE GAS MAINS AND INTERMEDIATE GAS MAINS.
- CALL FOR LINE SPOT BEFORE BEGINNING CONSTRUCTION OR EXCAVATION. TGS RECOMMENDS THAT CONTRACTOR CALL FOR LINE SPOTS PRIOR TO EXCAVATION IN THE AREA. IT IS REQUIRED THAT CONTRACTOR CALL TGS 48 HOURS PRIOR TO EXCAVATION THE ARE NEAR THE HIGH PRESSURE GAS MAIN.
- UNDERGROUND/OVERHEAD UTILITIES SHOWN ON THE DRAWING ARE FOR DESIGN PURPOSES ONLY. OTHER UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE DRAWINGS. THE LOCATION, DEPTH, AND SIZE OF THE UTILITIES SHOWN, ARE FOR INFORMATION PURPOSES ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR.
- ALL WHEELCHAIR RAMPS WITHIN THIS DEVELOPMENT SHALL BE CONSTRUCTED BY THE DEVELOPER AS PART OF THE SUBDIVISION IMPROVEMENTS.

PLAN
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:
CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION AND/OR RELOCATION OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK.

TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7969 SAN PAULO DR. EL PASO, TEXAS 79907 (915) 821-4480
AT&T INCORPORATED 11200 PELLICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 400 CONCORD STREET EL PASO, TEXAS 79908 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (TGS) ANYWHERE IN TEXAS EL PASO, TEXAS 79904 (915) 757-5922	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HENRIE PASS DR. EL PASO, TEXAS 79904 (915) 757-5922



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4562.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

414 Executive Center Blvd
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QUANTUM
CONSULTANTS
INCORPORATED
Texas Registered Engineering Firm F-005146

10/28/12

THE SEAL, SIGNATURE ON THIS DOCUMENT WAS AUTHORIZED BY: **ROBERT A. GONZALES**, REGISTERED PROFESSIONAL ENGINEER, NO. 16920, EXPIRES 09/30/15, THE PRACTICE ACT.

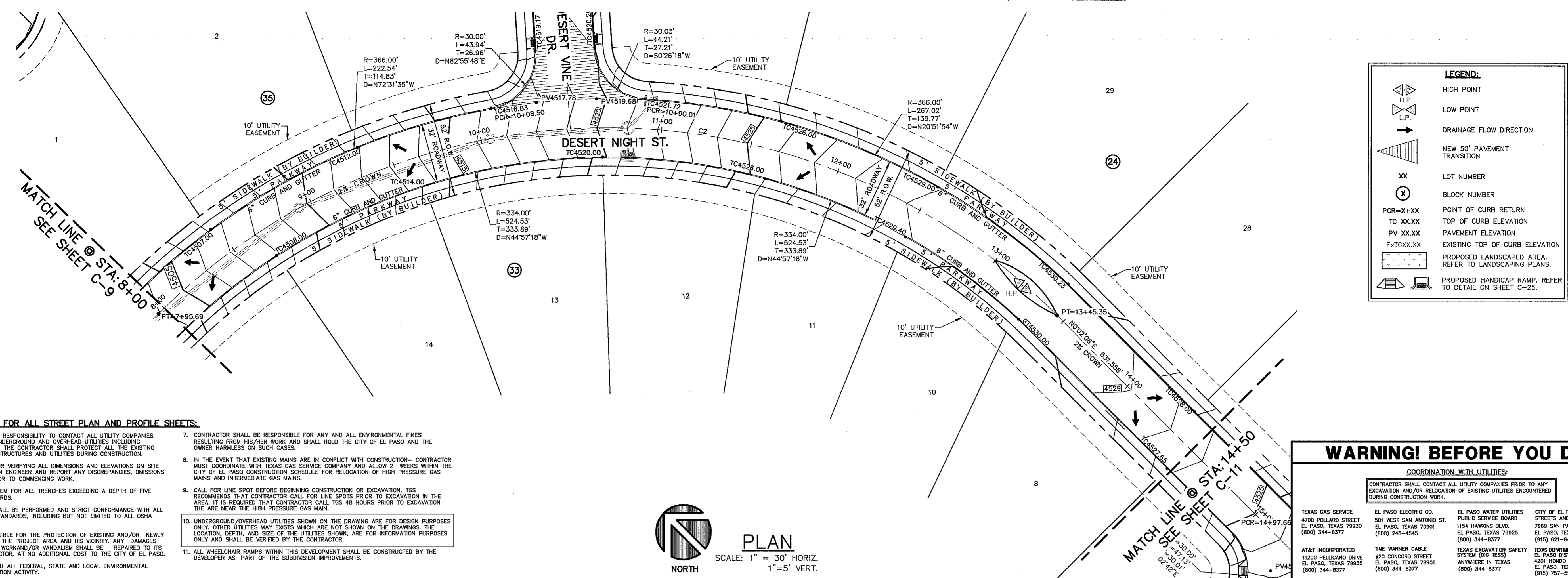
SCALE:
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 5'

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
STREET PLAN & PROFILE DESERT NIGHT STREET (1 OF 4)
STA: 1+00 TO 8+00

SHEET NO.
C-9
9 OF 49 SHEETS

Oct 26, 2016 1:55pm mmod
C:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\City Comments\3rd City Submittal\C-9-12 Desert Night & Franklin Dove P&P.dwg



LEGEND:

- H.P. HIGH POINT
- L.P. LOW POINT
- DRAINAGE FLOW DIRECTION
- NEW 50' PAVEMENT TRANSITION
- XX LOT NUMBER
- ⊙ BLOCK NUMBER
- PCR=X+XX POINT OF CURB RETURN
- TC XX.XX TOP OF CURB ELEVATION
- PV XX.XX PAVEMENT ELEVATION
- EXTCXX.XX EXISTING TOP OF CURB ELEVATION
- PROPOSED LANDSCAPING AREA. REFER TO DETAIL ON SHEET C-25.
- PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

TYPICAL GENERAL NOTES FOR ALL STREET PLAN AND PROFILE SHEETS:

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES FOR THE EXACT LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES INCLUDING UTILITIES NOT SHOWN ON PLANS. THE CONTRACTOR SHALL PROTECT ALL THE EXISTING UNDERGROUND AND OVERHEAD STRUCTURES AND UTILITIES DURING CONSTRUCTION.
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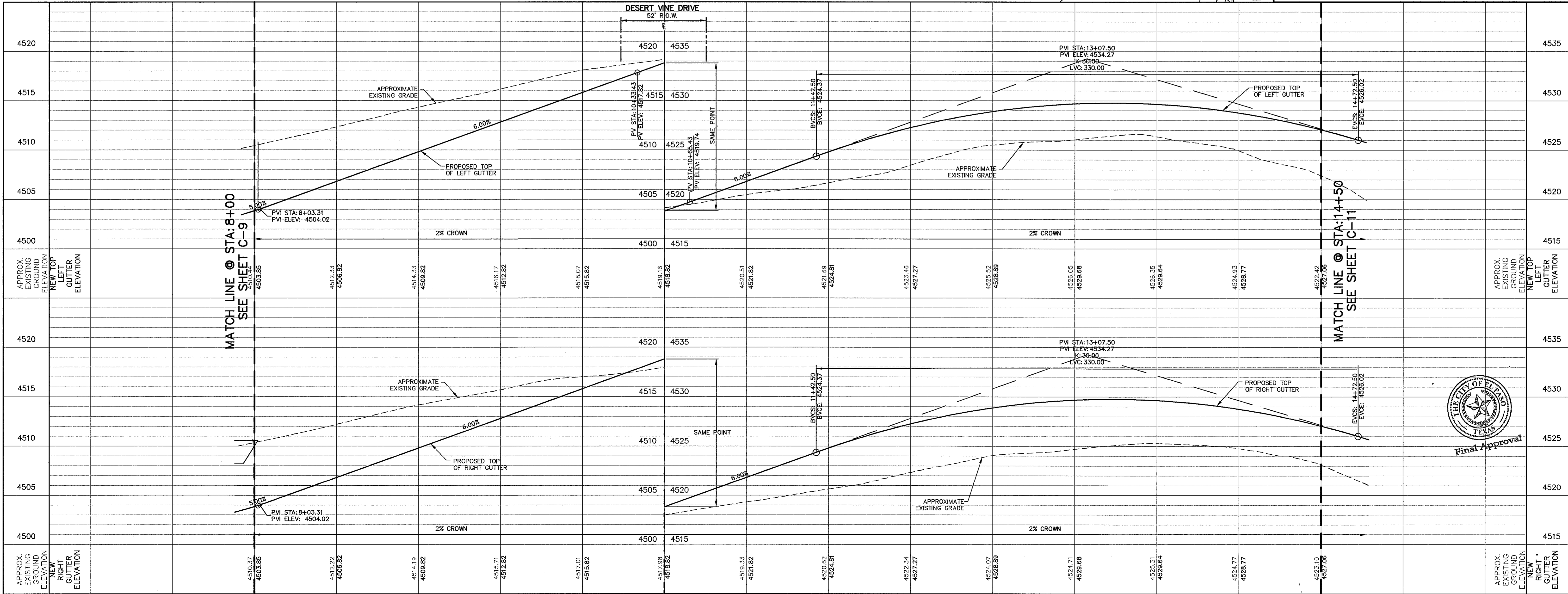
PLAN
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:

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AT&T INCORPORATED 11200 PELLICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 820 CONCORD STREET EL PASO, TEXAS 79904 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (800 RES) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 757-5922



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

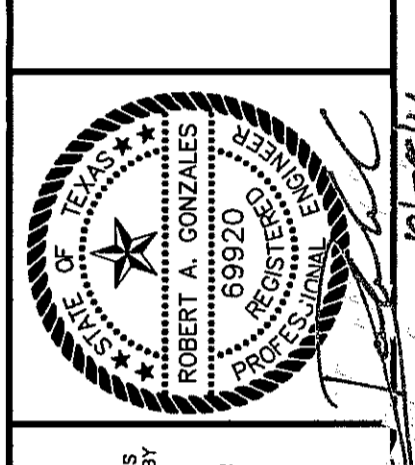
REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7372
F 915.532.7373

QUANTUM
ENGINEERING
INCORPORATED
Texas Registered Engineering Firm F-005146



SCALE:

HORIZONTAL:	1" = 30'
VERTICAL:	1" = 5'
CONTOUR INTERVAL:	1' (1" = 1')
DATE:	OCTOBER-2016
DESIGN BY:	M.A.G.
DRAWN BY:	CADD
CHKD BY:	R.A.G.
APPVD BY:	R.A.G.
JOB NO.:	1515

PROJECT TITLE

**FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS**

EL PASO COUNTY, TEXAS

SHEET TITLE

**STREET PLAN & FRANKLIN DOVE AVENUE
(2 OF 4)**

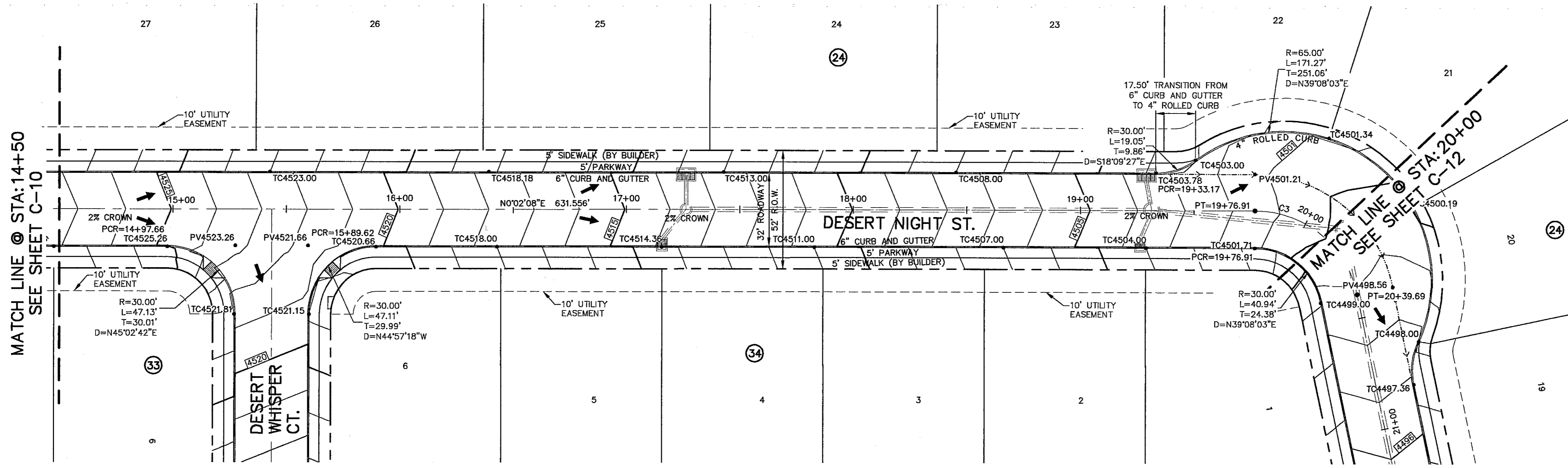
STA: 8+00 TO 14+50

SHEET NO.

C-10

10 OF 49 SHEETS

04_26_2016 14:57:00
C:\Users\m1515\Franklin Hills Unit 10 Subdivision\Civil\City Comments\3rd City Submittal\C-9-12 Desert Night & Franklin Dove P&P.dwg



LEGEND:

- ▲ HIGH POINT
- ▼ LOW POINT
- DRAINAGE FLOW DIRECTION
- ▨ NEW 50' PAVEMENT TRANSITION
- XX LOT NUMBER
- BLOCK NUMBER
- PCR=XX.XX POINT OF CURB RETURN
- TC XX.XX TOP OF CURB ELEVATION
- PV XX.XX PAVEMENT ELEVATION
- EXTCXX.XX EXISTING TOP OF CURB ELEVATION
- PROPOSED LANDSCAPED AREA. REFER TO LANDSCAPING PLANS.
- PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

TYPICAL GENERAL NOTES FOR ALL STREET PLAN AND PROFILE SHEETS:

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES FOR THE EXACT LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES INCLUDING UTILITIES NOT SHOWN ON PLANS. THE CONTRACTOR SHALL PROTECT ALL THE EXISTING UNDERGROUND AND OVERHEAD STRUCTURES AND UTILITIES DURING CONSTRUCTION.
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- INSTALL A TRENCH SAFETY SYSTEM FOR ALL TRENCHES EXCEEDING A DEPTH OF FIVE FEET (5') AS PER OSHA STANDARDS.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED AND STRICT CONFORMANCE WITH ALL CURRENT SAFETY CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO ALL OSHA REQUIREMENTS.
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- ALL WHEELCHAIR RAMPS WITHIN THIS DEVELOPMENT SHALL BE CONSTRUCTED BY THE DEVELOPER AS PART OF THE SUBDIVISION IMPROVEMENTS.

PLAN
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

CURVE TABLE

Curve	Station	Length	PC	PT	PI	Curve Data
C1	90+00.00"	350.00	549.78'	545'03"17"W	494.97'	
C2	89'58"51"	350.00	549.66'	N44'57"18"W	494.89'	
C3	78'11"50"	46.00	62.78'	N39'08"03"E	58.02'	

WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:

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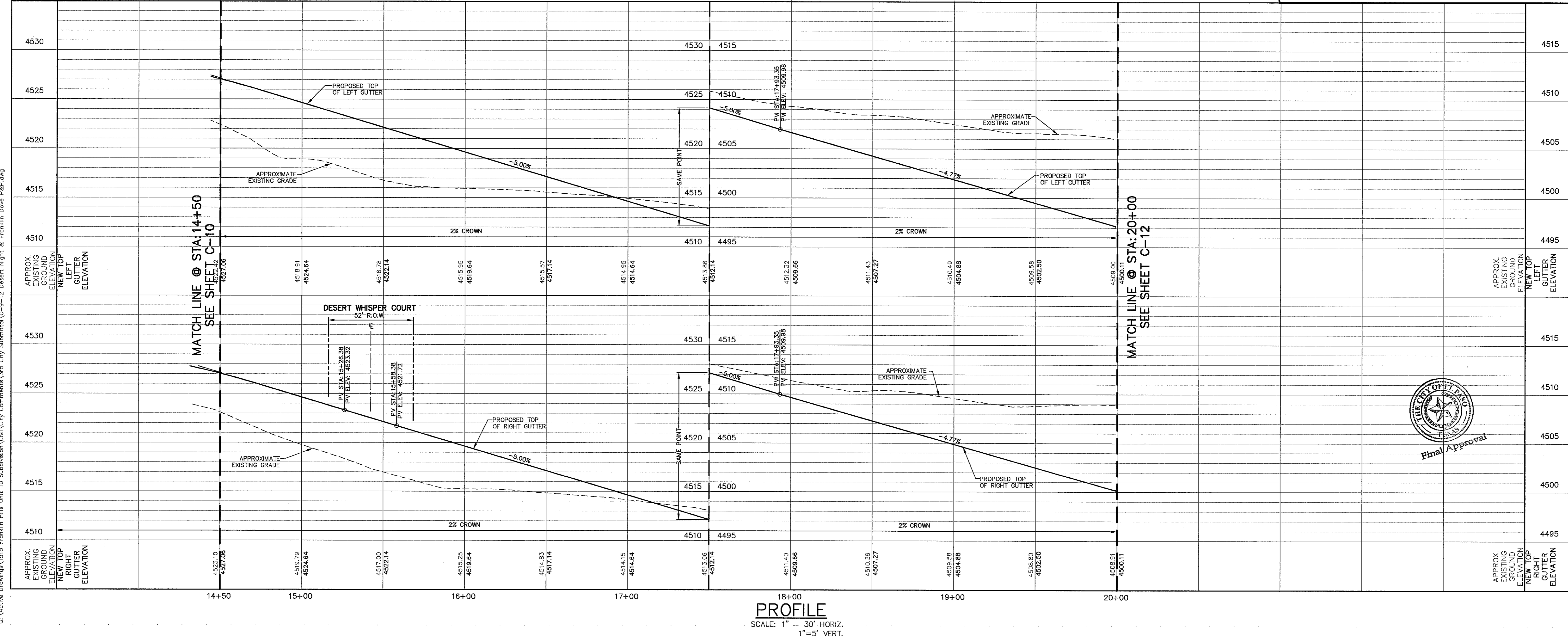
<p>TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377</p>	<p>EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545</p>	<p>EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377</p>	<p>CITY OF EL PASO STREETS AND MAINTENANCE 7869 SAN PABLO DR. EL PASO, TEXAS 79907 (915) 621-6460</p>
<p>AT&T INCORPORATED 11200 PELLICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377</p>	<p>TIME WARNER CABLE #20 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377</p>	<p>TEXAS EXCAVATION SAFETY SYSTEM (DIG TESS) ANYWHERE IN TEXAS (800) 344-8377</p>	<p>TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 757-5922</p>

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4392.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373

QUANTUM
CORPORATION
INCORPORATED
Texas Registered Engineering Firm F-005146



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

SCALE:
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 5'

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
STREET PLAN & PROFILE
FRANKLIN DOVE AVENUE
(3 OF 4)
STA: 14+50 TO 20+00

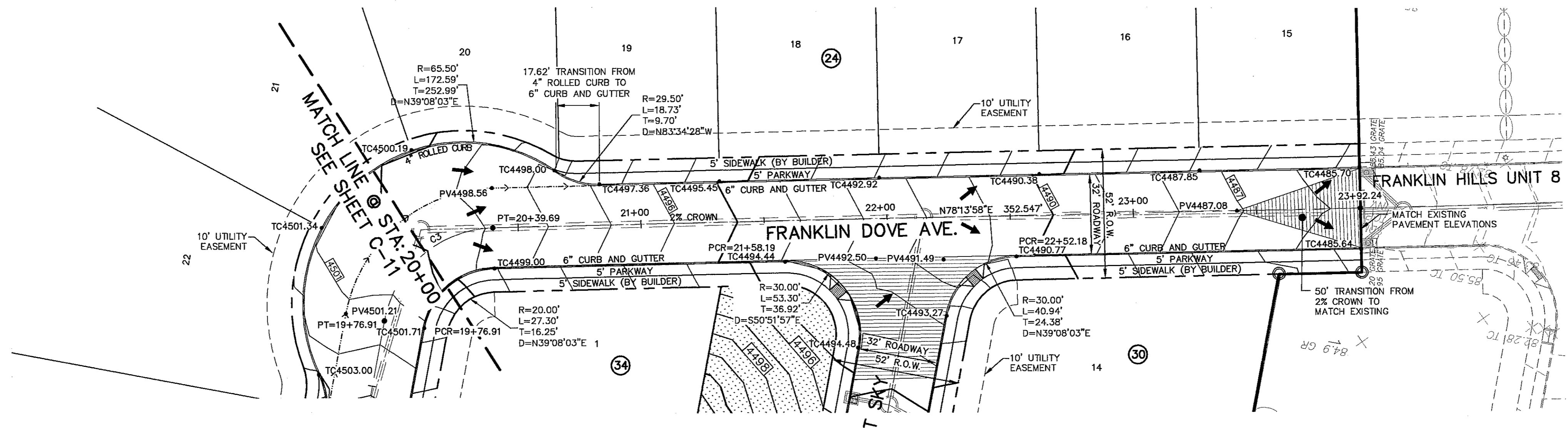
SHEET NO.
C-11
11 OF 49 SHEETS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE BOARD OF PROFESSIONAL ENGINEERS AND SURVEYORS OF THE STATE OF TEXAS. THE EXPIRATION DATE OF THIS SEAL IS OCTOBER 2016.

DESIGN BY: M.A.G.
DRAWN BY: C.A.D.
CHKD BY: R.A.G.
APPROV BY: R.A.G.
JOB NO. 1515

10/28/12

Oct 26, 2016 1:46pm rmed
Q:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\City Comments\3rd City Submittal\C-9-12 Desert Night & Franklin Dove P&P.dwg



LEGEND:

- H.P. HIGH POINT
- L.P. LOW POINT
- DRAINAGE FLOW DIRECTION
- NEW 50' PAVEMENT TRANSITION
- XX LOT NUMBER
- ⊙ BLOCK NUMBER
- PCR=X+XX POINT OF CURB RETURN
- TC XX.XX TOP OF CURB ELEVATION
- PV XX.XX PAVEMENT ELEVATION
- EXTCXX.XX EXISTING TOP OF CURB ELEVATION
- PROPOSED LANDSCAPED AREA. REFER TO LANDSCAPING PLANS.
- PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

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PLAN
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

WARNING! BEFORE YOU DIG

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TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79900 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 246-4546	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79905 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7909 SAN PAULO DR. EL PASO, TEXAS 79907 (915) 621-6480
AT&T INCORPORATED 11200 PELICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 420 CONCORD STREET EL PASO, TEXAS 79905 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (DIG TEST) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 757-5662

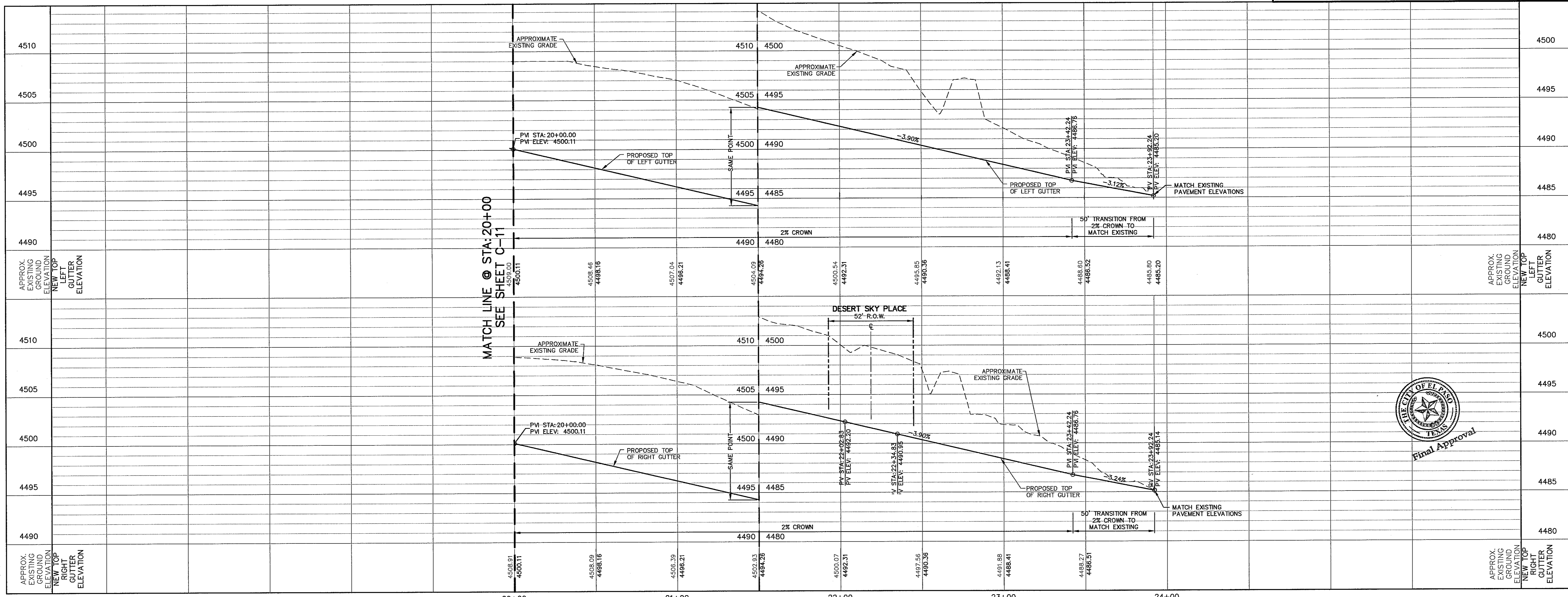
REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

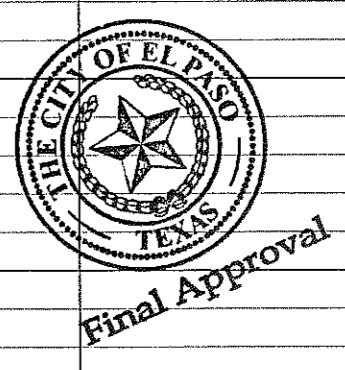
414 Executive Center Blvd
Ste 300 El Paso TX 79902
P 915.532.7272
F 915.532.7373

QUANTUM
engineering
INCORPORATED
Texas Registered Engineering Firm F-005146

Oct 26, 2016 1:51pm mmcl
C:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\Civil\City Comments\3rd City Submittal\C-9-12 Desert Night & Franklin Dove P&P.dwg



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



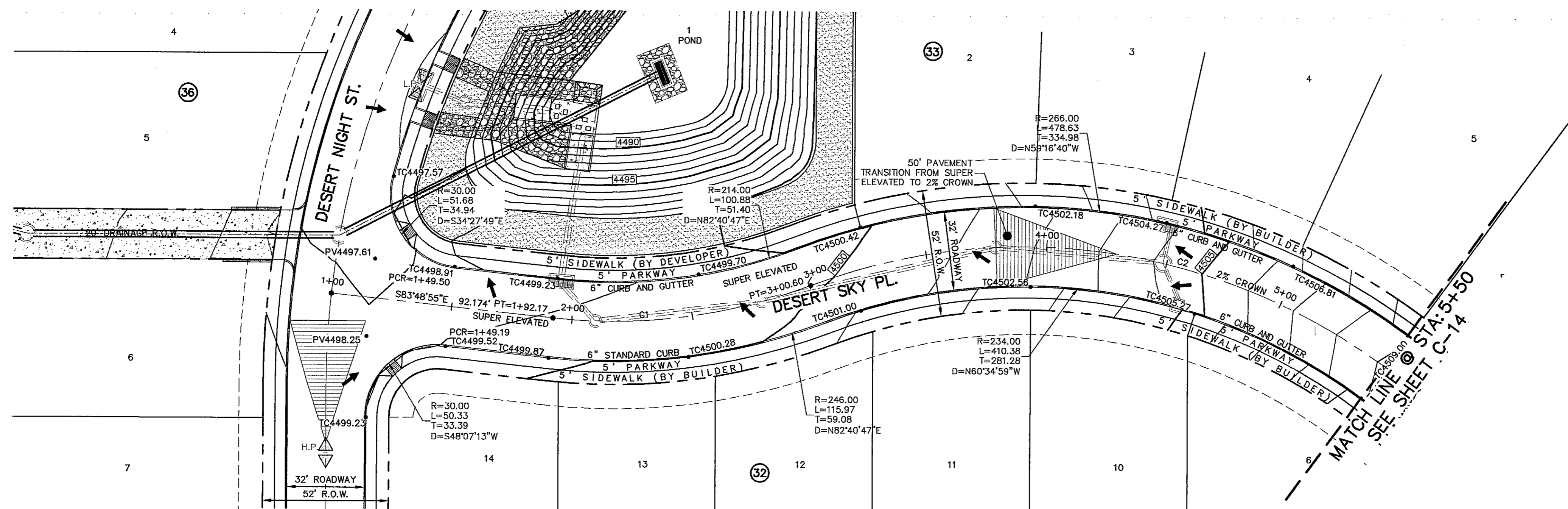
SCALE:
HORIZONTAL: _____
VERTICAL: _____
CONTOUR INTERVAL: _____

DATE: OCTOBER-2016
DESIGN BY: M.A.G.
CHECK BY: R.A.G.
APPROVED BY: R.A.G.
JOB NO.: 1515

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
STREET PLAN & PROFILE
FRANKLIN DOVE AVENUE
(4 OF 4)
STA: 20+00 TO 23+95.66

SHEET NO.
C-12
12 OF 49 SHEETS



LEGEND:

- H.P. HIGH POINT
- L.P. LOW POINT
- DRAINAGE FLOW DIRECTION
- NEW PAVEMENT TRANSITION
- XX LOT NUMBER
- (X) BLOCK NUMBER
- PCR=XX.XX POINT OF CURB RETURN
- TC XX.XX TOP OF CURB ELEVATION
- PV XX.XX PAVEMENT ELEVATION
- EXTCXX.XX EXISTING TOP OF CURB ELEVATION
- PROPOSED COMPACTED SCREENING AT POND MAINTENANCE ROAD
- PROPOSED LANDSCAPED AREA. REFER TO LANDSCAPING PLANS.
- PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

CURVE TABLE

Curve	Length	PC	PT	PI	Curve Data
C1	27'00.36"	230.00	108.42'	N82°40'47"E	107.42'
C2	108'16.26"	250.00	472.43'	N56°41'18"W	405.21'

TYPICAL GENERAL NOTES FOR ALL STREET PLAN AND PROFILE SHEETS:

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PLAN
SCALE: 1" = 5' VERT.

NORTH

WARNING! BEFORE YOU DIG

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<p>TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377</p>	<p>EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545</p>	<p>EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377</p>	<p>CITY OF EL PASO STREETS AND MAINTENANCE 7969 SAN PAULO DR. EL PASO, TEXAS 79907 (915) 661-6480</p>
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REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4352.20 (CITY DATUM) CONTOUR INTERVAL: ONE (1) FOOT

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373

QUANTUM
engineering
incorporated
Texas Registered Engineering Firm F-005146

THE SEAL, SIGNATURE OR THE DOCUMENT WAS AUTHORIZED BY THE BOARD OF ENGINEERS, ARCHITECTS AND LAND SURVEYORS OF THE STATE OF TEXAS.

ROBERT A. GONZALES
REGISTERED PROFESSIONAL ENGINEER
NO. 093242
EXPIRES 12/31/2016

SCALE:

HORIZONTAL: _____
VERTICAL: _____

DATE: OCTOBER-2016
DESIGN BY: M.A.S.
DRAWN BY: CAD
CHECKED BY: R.A.S.
APPROVED BY: R.A.S.
JOB NO. 1515

PROJECT TITLE

**FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS**

EL PASO COUNTY, TEXAS

SHEET TITLE

**STREET PLAN & PROFILE SHEET
SKY PLACE
(1 OF 2)**

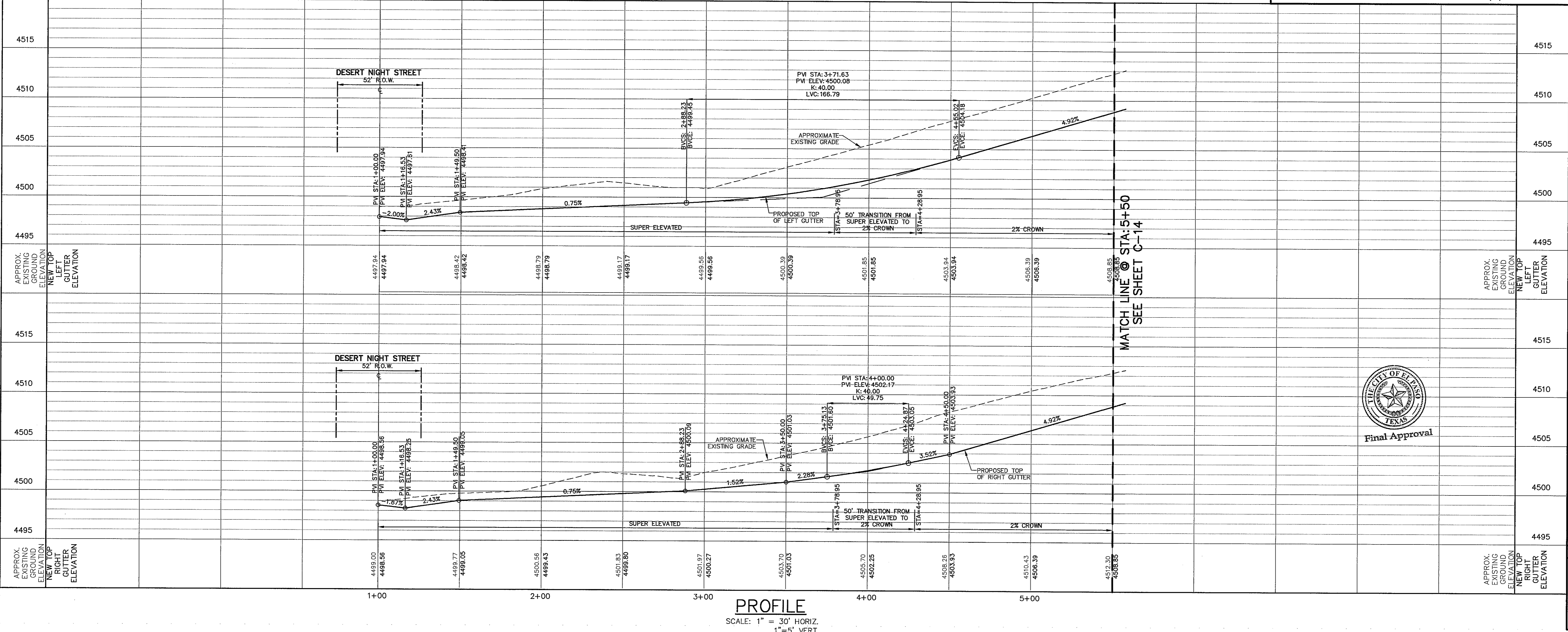
STA: 1+00 TO 5+50

SHEET NO.

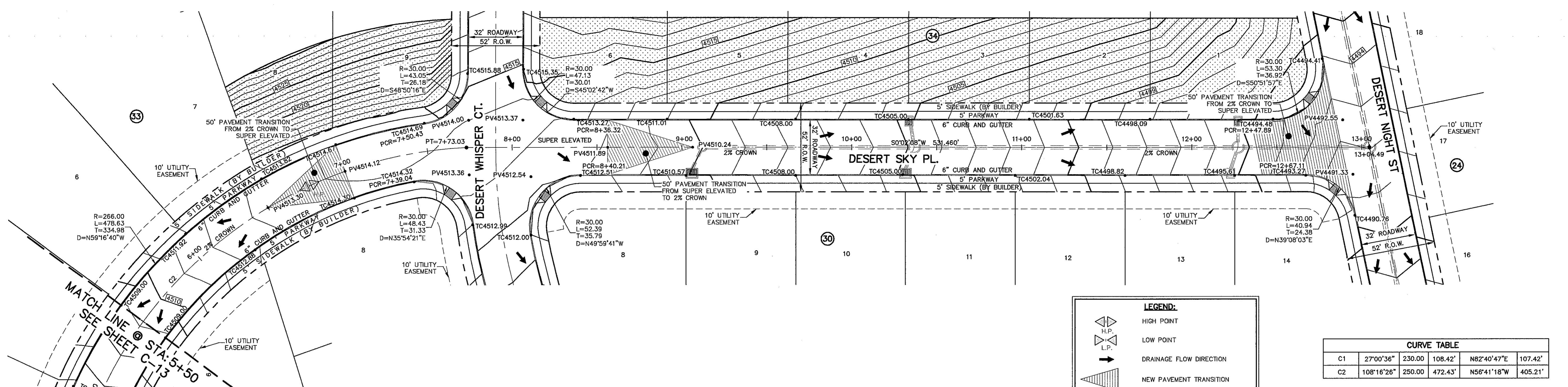
C-13

13 OF 49 SHEETS

Oct 26, 2016 2:02pm mmod
C:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\Civil\City Comments\3rd City Submitted\C-13-14 Desert Sky P&P.dwg



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



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LEGEND:

- HIGH POINT
- LOW POINT
- DRAINAGE FLOW DIRECTION
- NEW PAVEMENT TRANSITION
- LOT NUMBER
- BLOCK NUMBER
- PCR=XX+XX
- TC XX.XX
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- PROPOSED UTILITIES LANDSCAPED AREA. REFER TO LANDSCAPING PLANS.
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- PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

CURVE TABLE

Curve	Stationing	Length	Radius	Chord
C1	27+00.36"	230.00'	108.42'	N82°40'47"E 107.42'
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REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTRAL INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM) CONTOUR INTERVAL: ONE (1) FOOT

QUANTUM
Engineering
1414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7372
F 915.532.7373
INCORPORATED

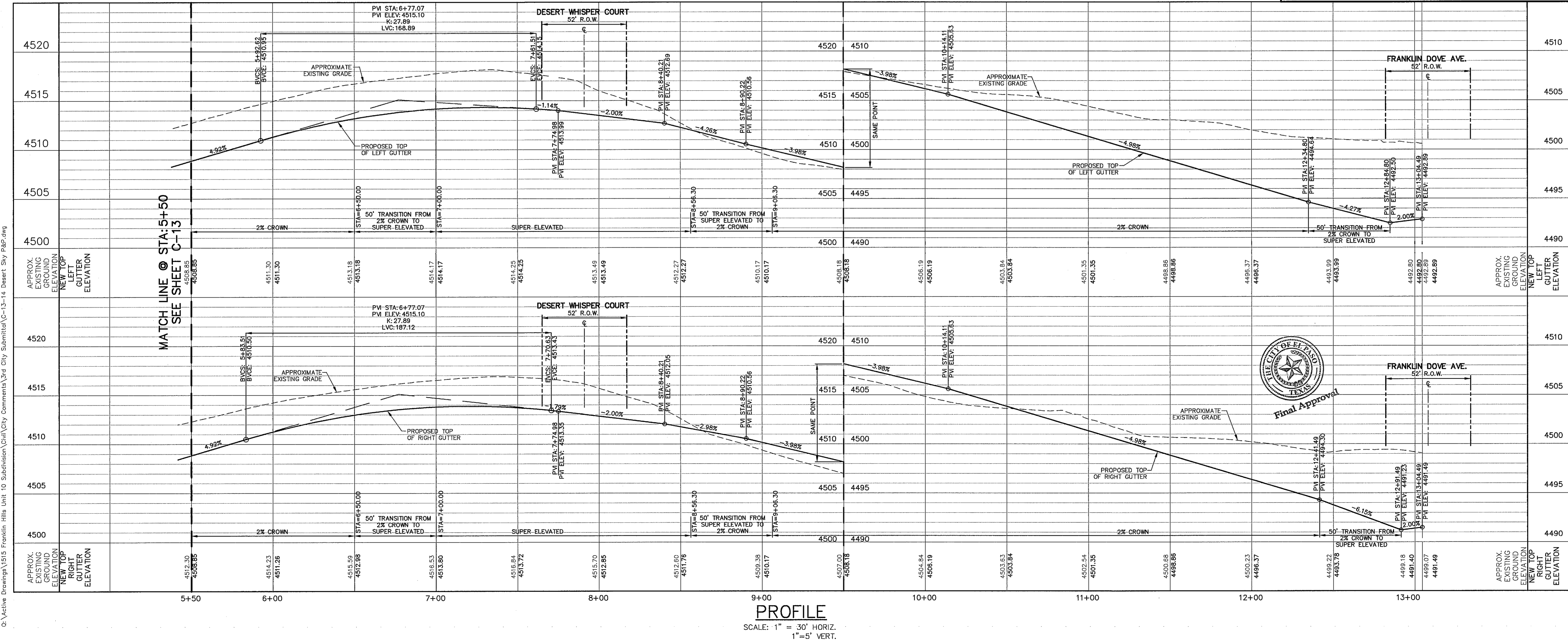
Texas Registered Engineering Firm F-005146

SCALE:
HORIZONTAL: 1"=30'
VERTICAL: 1"=5'

PROJECT TITLE:
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE:
STREET PLAN & PROFILE
SKY PLACE
(2 OF 2)
STA: 5+50 TO 13+08.11

SHEET NO.:
C-14
14 OF 49 SHEETS



Oct 26, 2016 2:05pm mmal
C:\Active Drawings\1015 Franklin Hills Unit 10 Subdivision\Civil\City Comments\3rd City Submittal\C-13-14 Desert Sky P&P.dwg

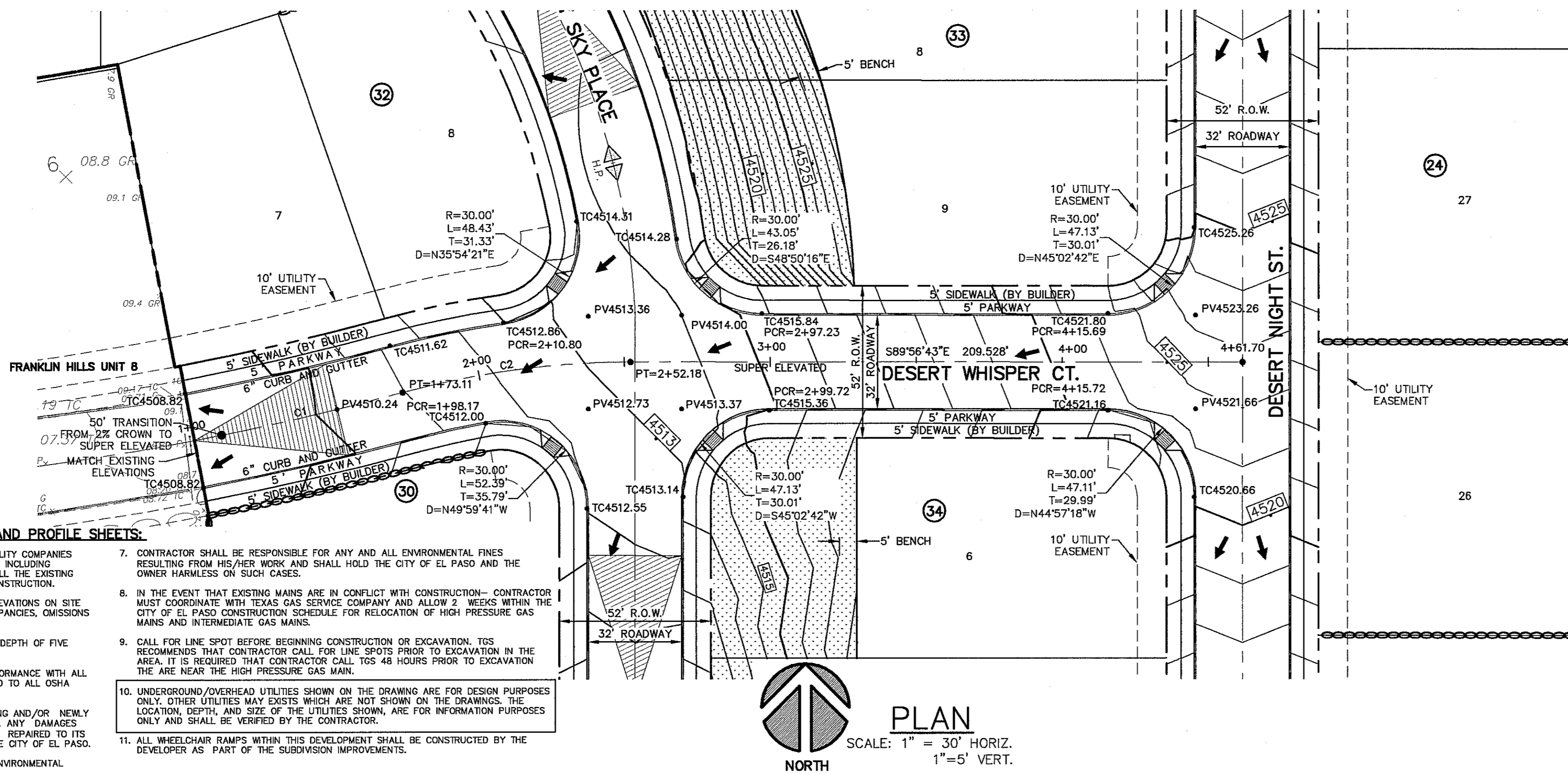
DESIGNER: M.A.G.
DRAWN BY: C.A.D.
CHECKED BY: R.A.G.
APP'D BY: M.A.G.
JOB NO.: 1515

SCALE:
HORIZONTAL: 1"=30'
VERTICAL: 1"=5'

PROJECT TITLE:
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

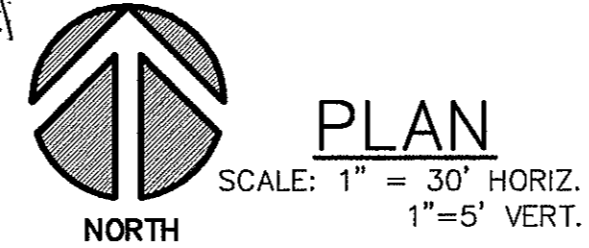
SHEET TITLE:
STREET PLAN & PROFILE
SKY PLACE
(2 OF 2)
STA: 5+50 TO 13+08.11

SHEET NO.:
C-14
14 OF 49 SHEETS



TYPICAL GENERAL NOTES FOR ALL STREET PLAN AND PROFILE SHEETS:

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES FOR THE EXACT LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES INCLUDING UTILITIES NOT SHOWN ON PLANS. THE CONTRACTOR SHALL PROTECT ALL THE EXISTING UNDERGROUND AND OVERHEAD STRUCTURES AND UTILITIES DURING CONSTRUCTION.
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- IN THE EVENT THAT EXISTING MAINS ARE IN CONFLICT WITH CONSTRUCTION— CONTRACTOR MUST COORDINATE WITH TEXAS GAS SERVICE COMPANY AND ALLOW 2 WEEKS WITHIN THE CITY OF EL PASO CONSTRUCTION SCHEDULE FOR RELOCATION OF HIGH PRESSURE GAS MAINS AND INTERMEDIATE GAS MAINS.
- CALL FOR LINE SPOT BEFORE BEGINNING CONSTRUCTION OR EXCAVATION. TSS RECOMMENDS THAT CONTRACTOR CALL FOR LINE SPOTS PRIOR TO EXCAVATION IN THE AREA. IT IS REQUIRED THAT CONTRACTOR CALL TGS 48 HOURS PRIOR TO EXCAVATION IN THE AREA NEAR THE HIGH PRESSURE GAS MAIN.
- UNDERGROUND/OVERHEAD UTILITIES SHOWN ON THE DRAWING ARE FOR DESIGN PURPOSES ONLY. OTHER UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE DRAWINGS. THE LOCATION, DEPTH, AND SIZE OF THE UTILITIES SHOWN, ARE FOR INFORMATION PURPOSES ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR.
- ALL WHEELCHAIR RAMPS WITHIN THIS DEVELOPMENT SHALL BE CONSTRUCTED BY THE DEVELOPER AS PART OF THE SUBDIVISION IMPROVEMENTS.



CURVE TABLE				
C1	15°05'59"	300.00	79.06'	S82°30'18"W 78.83'
C2	4°11'36"	999.00	73.11'	N77°03'06"E 73.10'

LEGEND:

- HIGH POINT (H.P.)
- LOW POINT (L.P.)
- DRAINAGE FLOW DIRECTION
- NEW 50' PAVEMENT TRANSITION
- LOT NUMBER (XX)
- POINT NUMBER (X)
- PCR=X+XX: POINT OF CURB RETURN
- TC XX.XX: TOP OF CURB ELEVATION
- PV XX.XX: PAVEMENT ELEVATION
- EXTXX.XX: EXISTING TOP OF CURB ELEVATION
- PROPOSED LANDSCAPED AREA. REFER TO LANDSCAPING PLANS.
- PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:
CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION AND/OR RELOCATION OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK.

TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7909 SAN PABLO DR. EL PASO, TEXAS 79907 (915) 621-6400
AT&T INCORPORATED 11200 PULICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 420 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (T.E.S.S.) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 792-5622

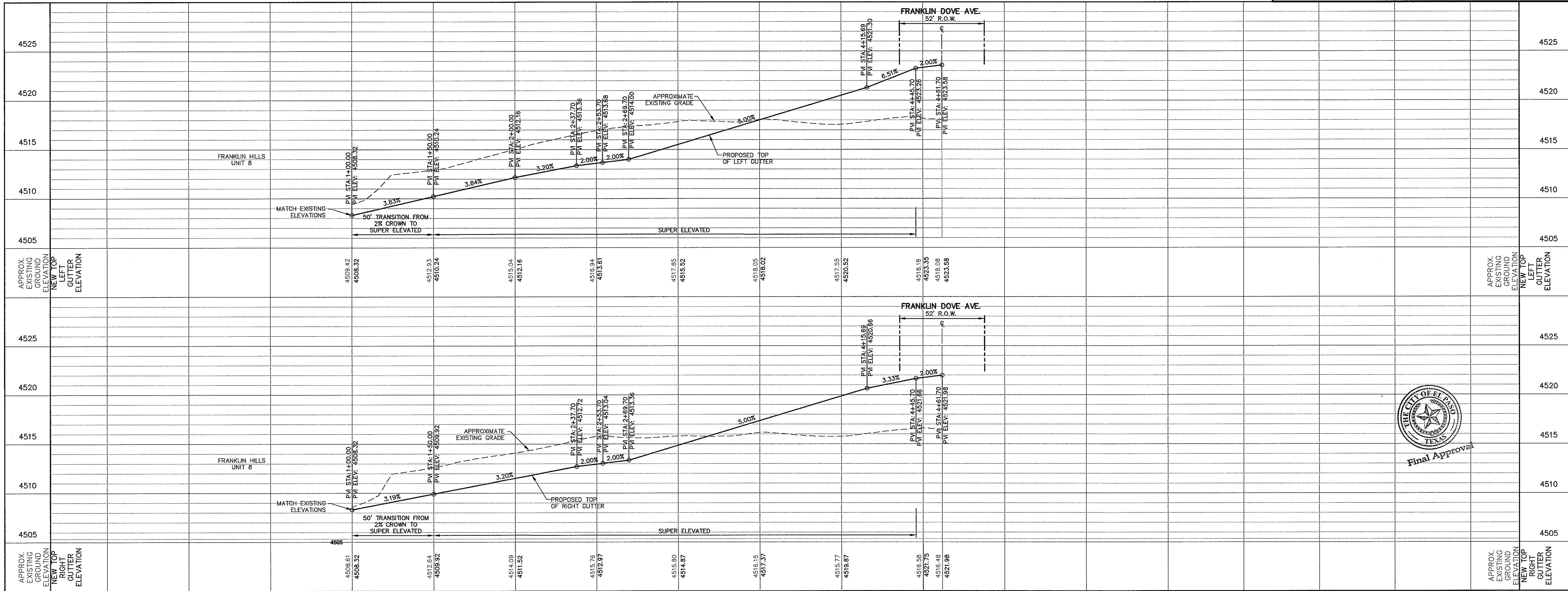
REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM) CONTOUR INTERVAL = ONE (1) FOOT

DATE	REVISION	BY

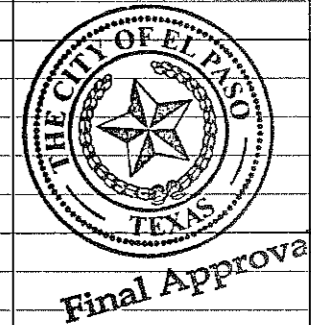
QUANTUM
Engineering
INCORPORATED
Texas Registered Engineering Firm F-005146

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7972
F 915.532.7973

Oct. 26, 2016 2:59pm mmal
C:\Active Drawings\Civil\City Comments\16 City Submittal\C-15 Desert Whisper P&P.dwg



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



PROJECT TITLE
FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
STREET PLAN & PROFILE DESERT WHISPER COURT
STA: 1+00 TO 4+60.39

SHEET NO.
C-15
15 OF 49 SHEETS

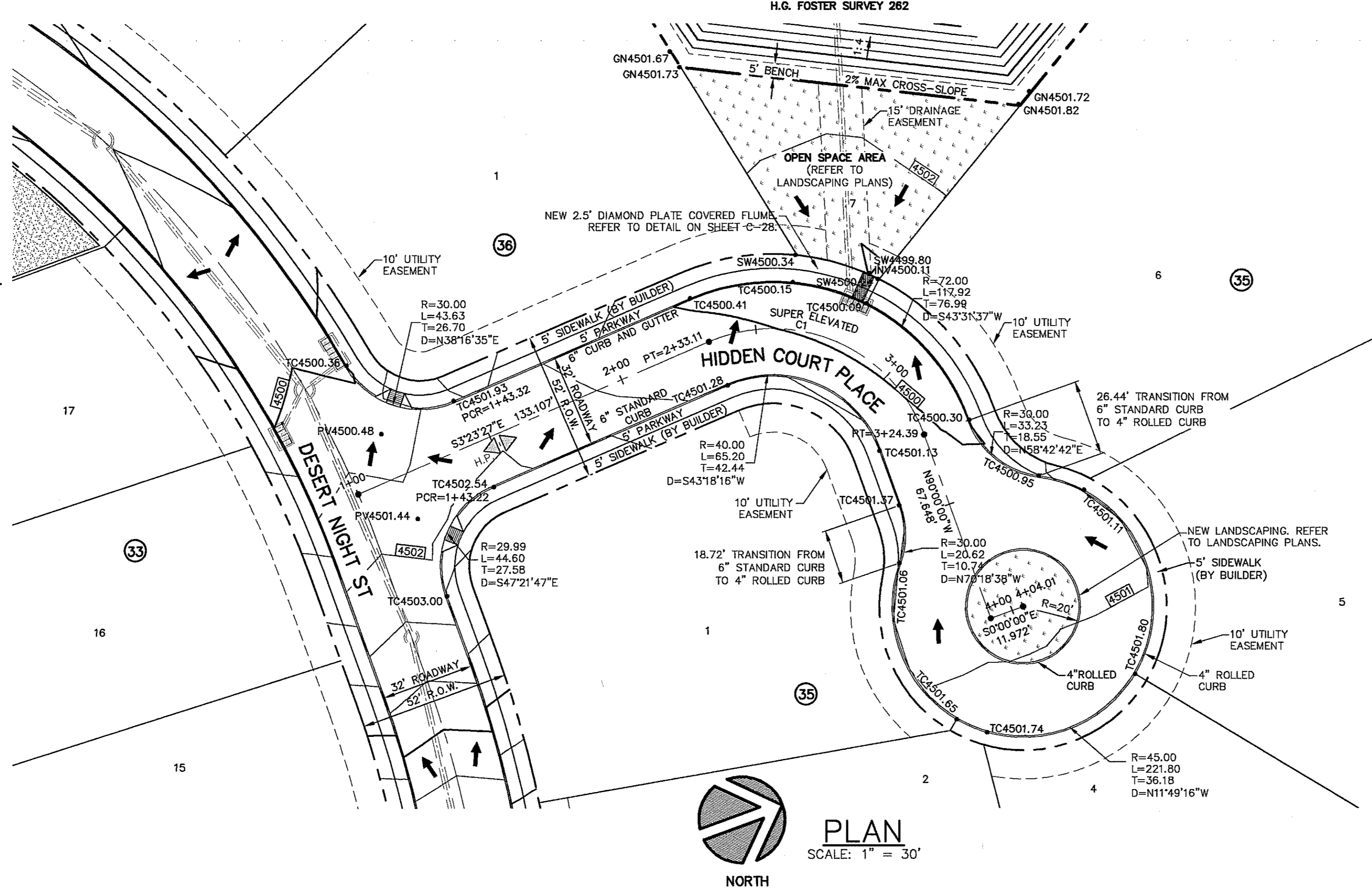
SCALE:
HORIZONTAL: _____
VERTICAL: _____

DATE: OCTOBER-2016
DESIGN BY: M.A.G.
CHECK BY: C.A.G.
APPROVED BY: R.A.G.
JOB NO. 1515

THE SEAL APPEARING ON THIS DRAWING IS THE SEAL OF THE PROFESSIONAL ENGINEER IN THE STATE OF TEXAS. THE SIGNATURE OF THE ENGINEER IS A NECESSARY PART OF THE PROFESSIONAL SEAL. THE SIGNATURE OF THE ENGINEER IS A NECESSARY PART OF THE PROFESSIONAL SEAL.

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- ALL WHEELCHAIR RAMPS WITHIN THIS DEVELOPMENT SHALL BE CONSTRUCTED BY THE DEVELOPER AS PART OF THE SUBVERSION IMPROVEMENTS.



CURVE TABLE			
C1	93°23'28"	56.00	91.28'
			S43°18'17"W 81.50'

LEGEND:

- H.P. HIGH POINT
- L.P. LOW POINT
- DRAINAGE FLOW DIRECTION
- NEW 50' PAVEMENT TRANSITION
- XX LOT NUMBER
- (X) BLOCK NUMBER
- PCR=X-XX POINT OF CURB RETURN
- TC XXXX TOP OF CURB ELEVATION
- PV XXXX PAVEMENT ELEVATION
- EXTCXX.XX EXISTING TOP OF CURB ELEVATION
- (---) PROPOSED LANDSCAPED AREA. REFER TO LANDSCAPING PLANS.
- (---) PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

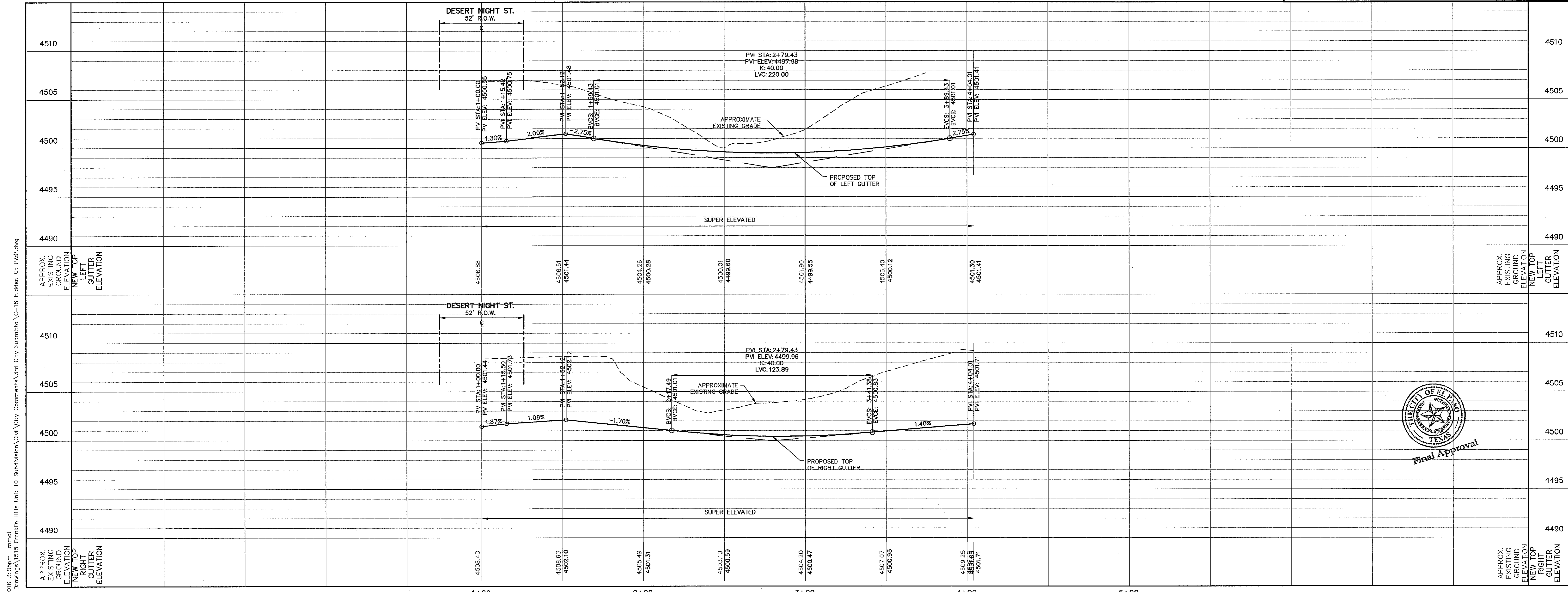
WARNING! BEFORE YOU DIG

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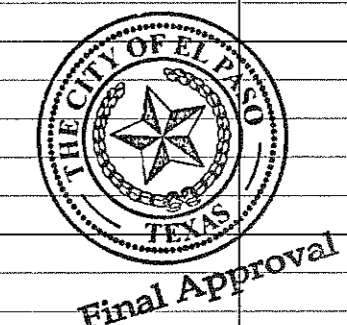
TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 344-8377	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7968 SAN PAULO DR. EL PASO, TEXAS 79907 (915) 621-6480
AT&T INCORPORATED 11200 PULCIGANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 400 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (TDES) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 757-5622

REFERENCES - BENCHMARK
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM)
 CONTOUR INTERVAL: ONE (1) FOOT

QUANTUM
 engineering
 414 Executive Center Blvd
 Ste 200 El Paso TX 79902
 P 915.532.7372
 F 915.532.7373
 Texas Registered Engineering Firm F-005146



PROFILE
 SCALE: 1" = 30' HORIZ.
 1" = 5' VERT.



SCALE:
 HORIZONTAL: 1" = 30'
 VERTICAL: 1" = 5'

DATE: OCTOBER-2016
DESIGN BY: M.A.C.
CHECK BY: C.A.D.
APPROVED BY: R.A.G.
JOB NO.: 1515

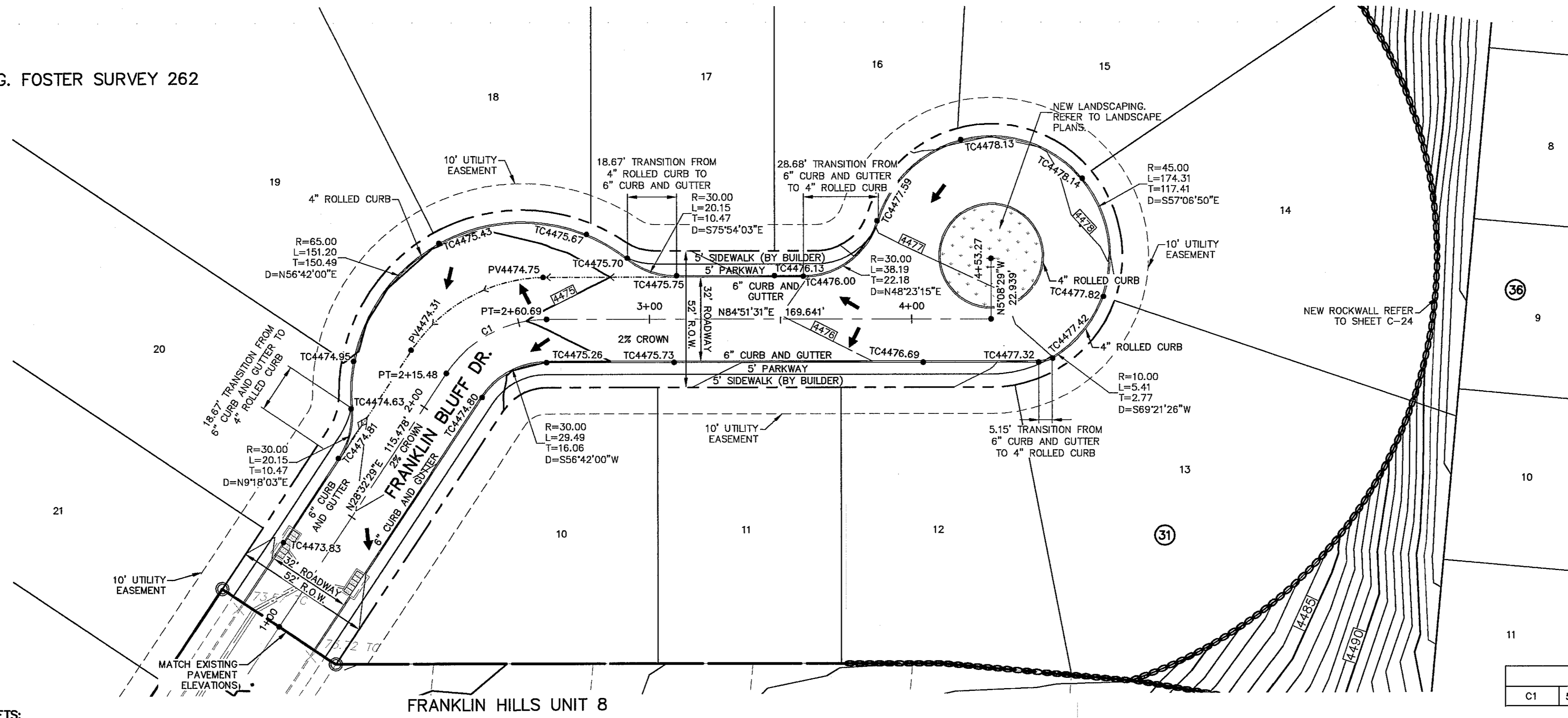
PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
 EL PASO COUNTY, TEXAS

SHEET TITLE
STREET P&P
HIDDEN COURT PLACE
 STA: 1+00 TO 4+04.01

SHEET NO.
C-16
 16 OF 49 SHEETS

Oct 26, 2016 3:08pm, mmal
 C:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\Civil\City Comments\16 Hidden Ct P&P.dwg

H.G. FOSTER SURVEY 262



LEGEND:

- H.P. HIGH POINT
- L.P. LOW POINT
- DRAINAGE FLOW DIRECTION
- NEW 5' PAVEMENT TRANSITION
- XX LOT NUMBER
- (X) BLOCK NUMBER
- PCR=X+XX POINT OF CURB RETURN
- TC XX.XX TOP OF CURB ELEVATION
- PV XX.XX PAVEMENT ELEVATION
- EXTCXX.XX EXISTING TOP OF CURB ELEVATION
- PROPOSED LANDSCAPED AREA. REFER TO LANDSCAPING PLANS.
- PROPOSED HANDICAP RAMP. REFER TO DETAIL ON SHEET C-25.

CURVE TABLE

C1	56°19'02"	46.00	45.21'	S56°42'00"W	43.42'
----	-----------	-------	--------	-------------	--------

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PLAN
SCALE: 1" = 30'

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AT&T INCORPORATED 11200 PELLICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE #20 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (DIG TESS) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 400 HERRID PASS DR. EL PASO, TEXAS 79904 (915) 757-5922

REFERENCES - BENCHMARK

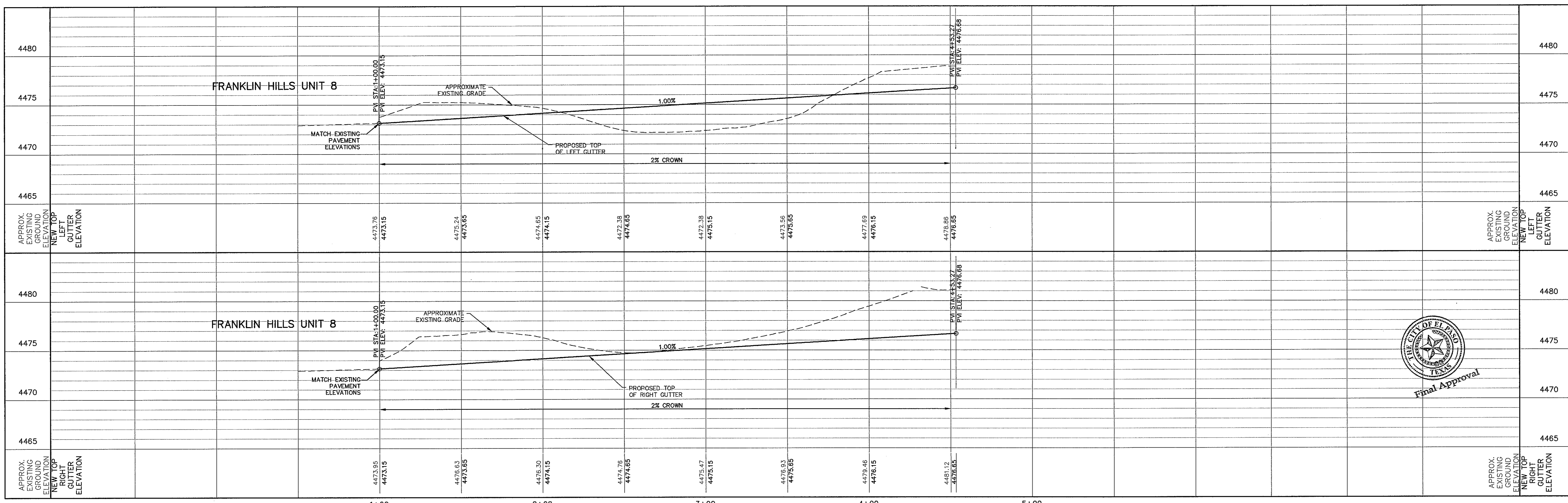
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM) CONTOUR INTERVAL - ONE (1) FOOT

DATE	REVISION	BY

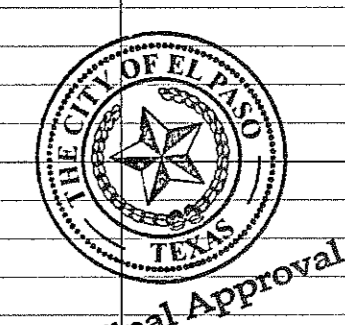
414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7372
F 915.532.7373

QUANTUM
engineering
INCORPORATED
Texas Registered Engineering Firm F-005146

01/25/14



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



PROJECT TITLE

**FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS**
EL PASO COUNTY, TEXAS

SHEET TITLE

**STREET PLAN & PROFILE
FRANKLIN
BLUFF DRIVE**

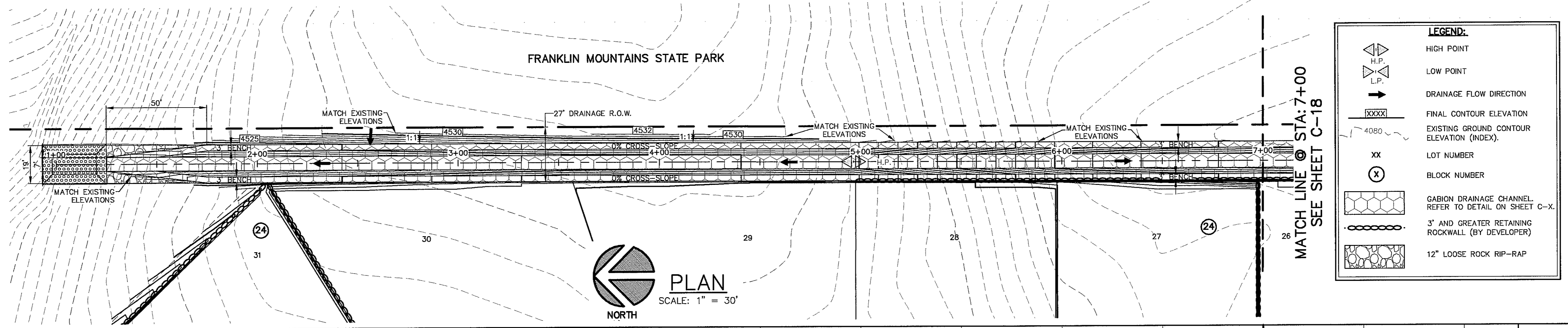
STA: 1+00 TO 4+53.27

SHEET NO.

C-17

17 OF 49 SHEETS

Oct 26, 2016 3:19pm mmal
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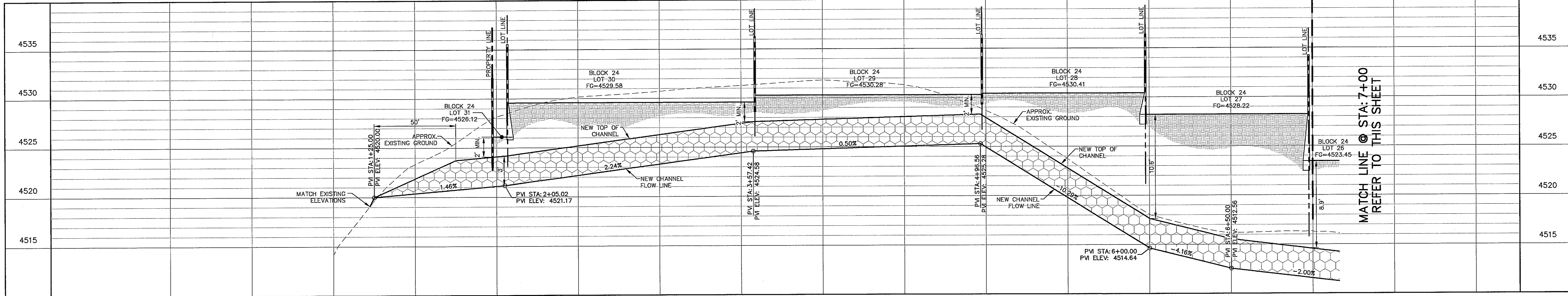
LEGEND:

- HIGH POINT
- LOW POINT
- DRAINAGE FLOW DIRECTION
- FINAL CONTOUR ELEVATION
- EXISTING GROUND CONTOUR ELEVATION (INDEX)
- LOT NUMBER
- BLOCK NUMBER
- GABION DRAINAGE CHANNEL. REFER TO DETAIL ON SHEET C-X.
- 3' AND GREATER RETAINING ROCKWALL (BY DEVELOPER)
- 12" LOOSE ROCK RIP-RAP

REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM). CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY



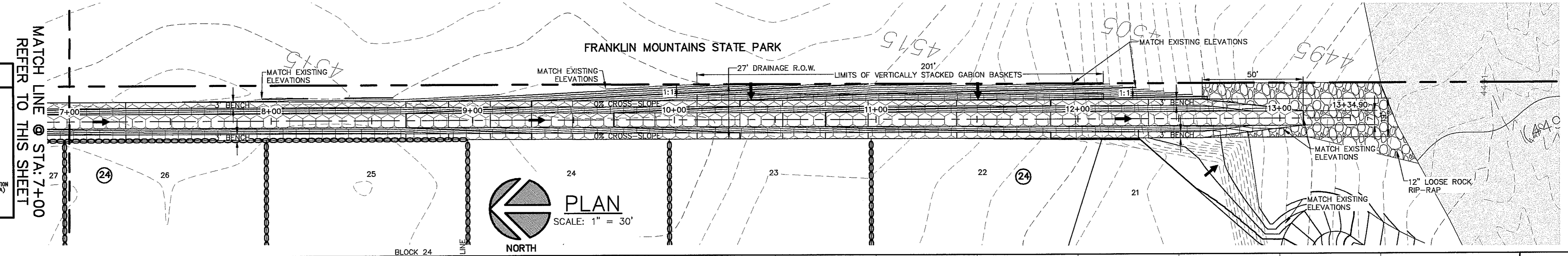
PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

***NOTE:**
1. CHANNEL FLOW LINE TO BE A MINIMUM RUNNING SLOPE OF 0.50%

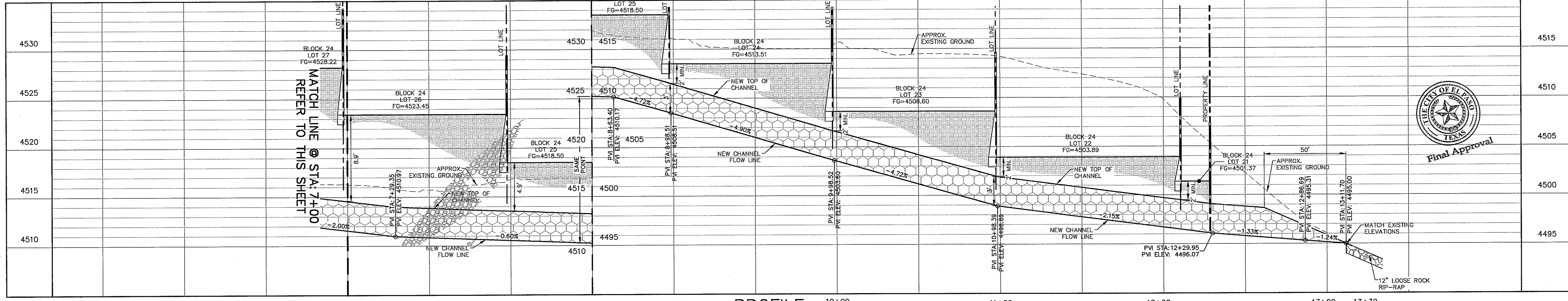
WARNING! BEFORE YOU DIG

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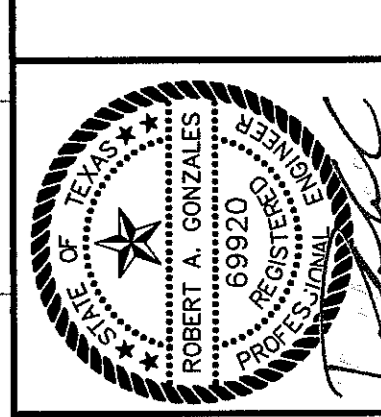
PLAN
SCALE: 1" = 30'



PROFILE
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

QUANTUM
engineering
INCORPORATED
Texas Registered Engineering Firm F-005146

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373



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SCALE:

HORIZONTAL: _____
VERTICAL: _____

CONTOUR INTERVAL: _____

DATE: OCTOBER-2016
DESIGN BY: _____
CHECK BY: _____
APPROVED BY: _____
JOB NO.: _____

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
DRAINAGE
CHANNEL
PLAN & PROFILE
STA: 1+00 TO 13+34.90

SHEET NO.
C-18
18 OF 49 SHEETS

Oct 26, 2016 3:17pm mmdl
C:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\Civil\City Comments\3rd City Submittal\C-18 Channel P&P.dwg

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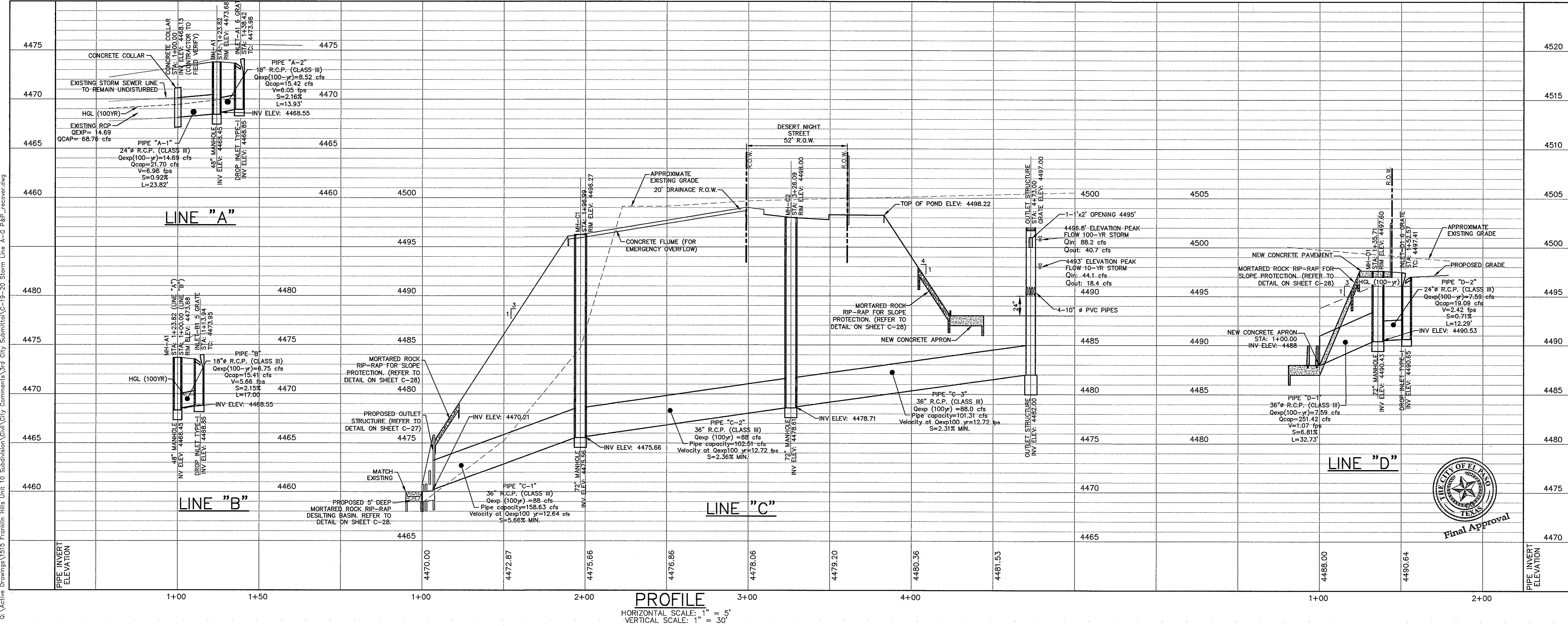
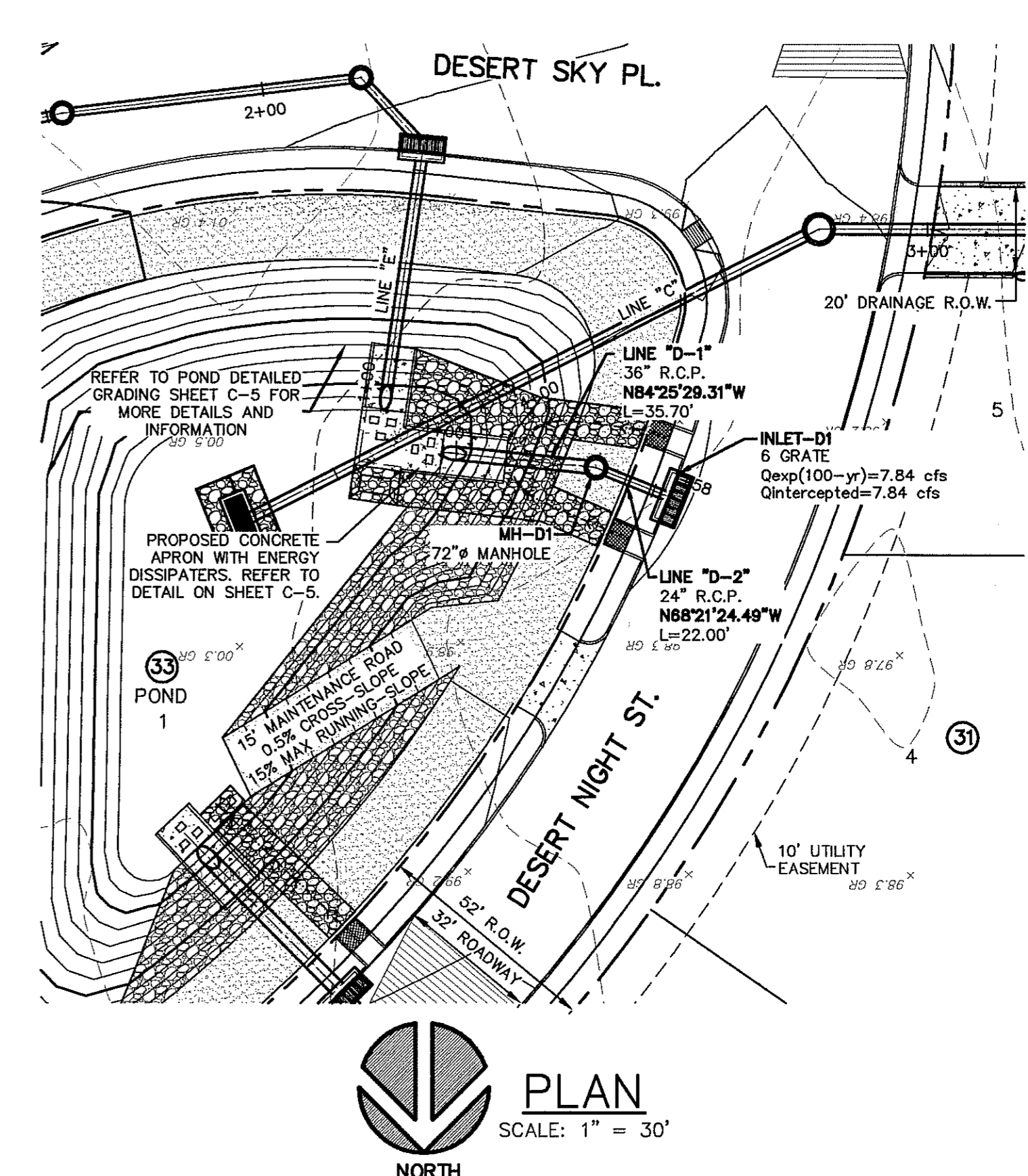
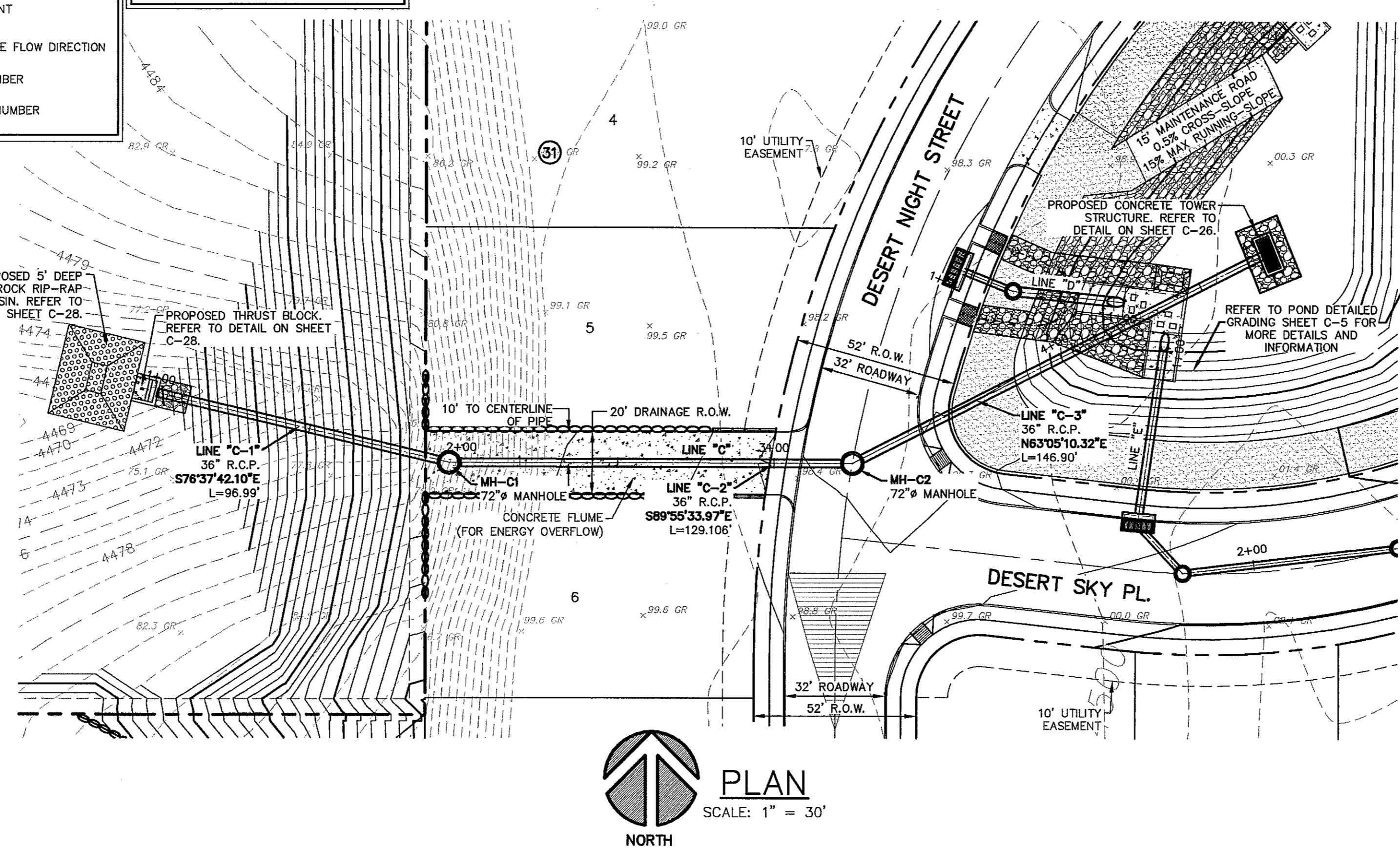
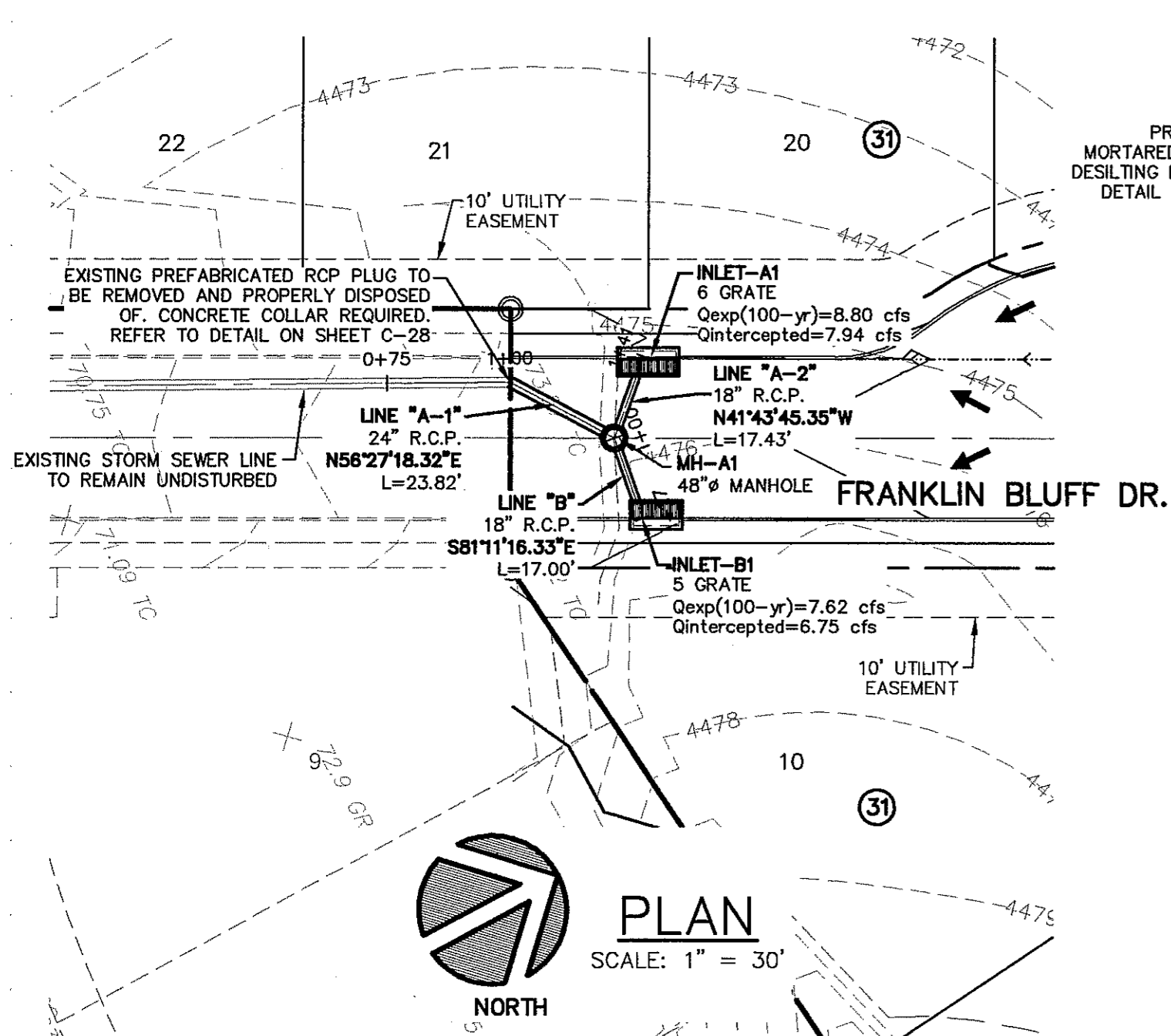
TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7969 SAN PABLO DR. EL PASO, TEXAS 79907 (915) 621-6480
AT&T INCORPORATED 11200 PELLICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 420 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (DIG TEST) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 797-9922

LEGEND:

- HIGH POINT
- LOW POINT
- DRAINAGE FLOW DIRECTION
- LOT NUMBER
- BLOCK NUMBER

NOTE:

ALL DIMENSIONS SHOWN ARE FROM R.O.W./PROPERTY LINE TO CENTER OF STORM SEWER PIPE



REFERENCES - BENCHMARK
CITY MONUMENT AT THE CORNER INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM). CONTOUR INTERVAL: ONE (1) FOOT.

SCALE:
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 5'

PROJECT TITLE
FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
STORM WATER PLAN AND PROFILE
LINE "A"
LINE "B"
LINE "C"
LINE "D"

SHEET NO.
C-19
19 OF 49 SHEETS

DESIGNER: QUANTUM ENGINEERING INCORPORATED
DATE: OCTOBER-2016
DESIGNED BY: M.A.S.
DRAWN BY: C.A.D.
CHECKED BY: R.A.S.
APPROVED BY: R.A.S.
JOB NO.: 1515

QUANTUM ENGINEERING INCORPORATED
414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7373
F 915.532.7373
Texas Registered Engineering Firm F-005146

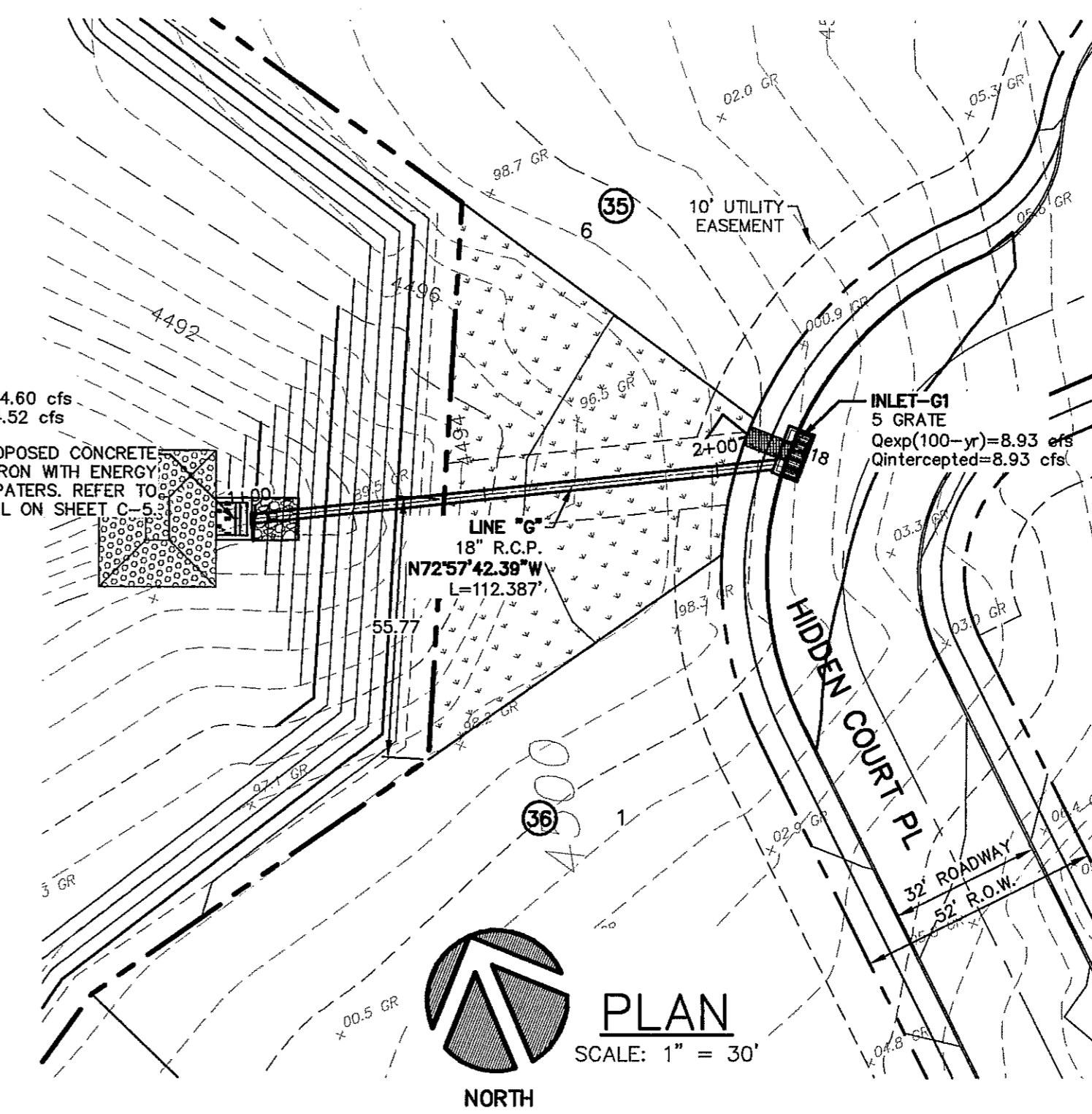
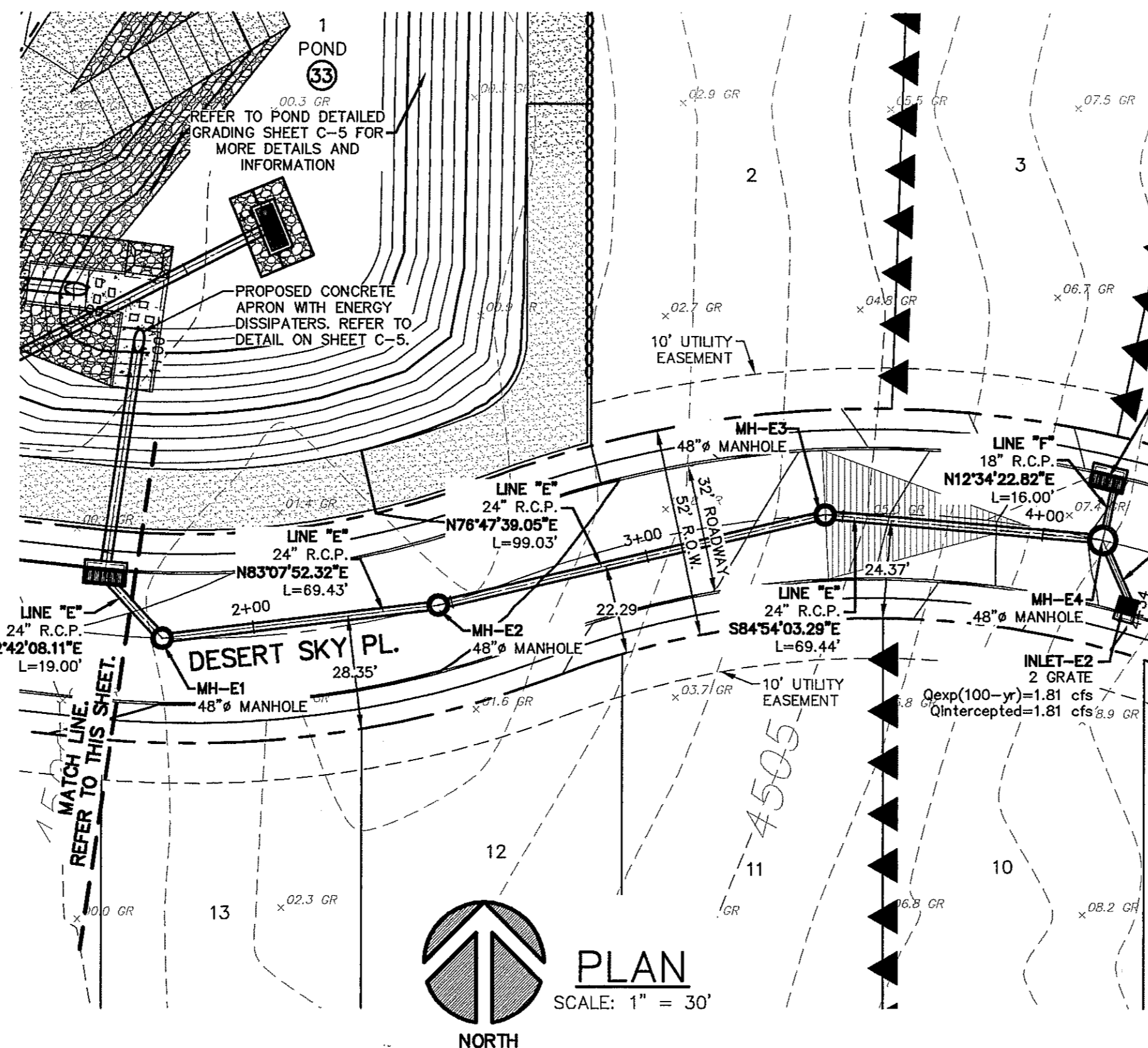
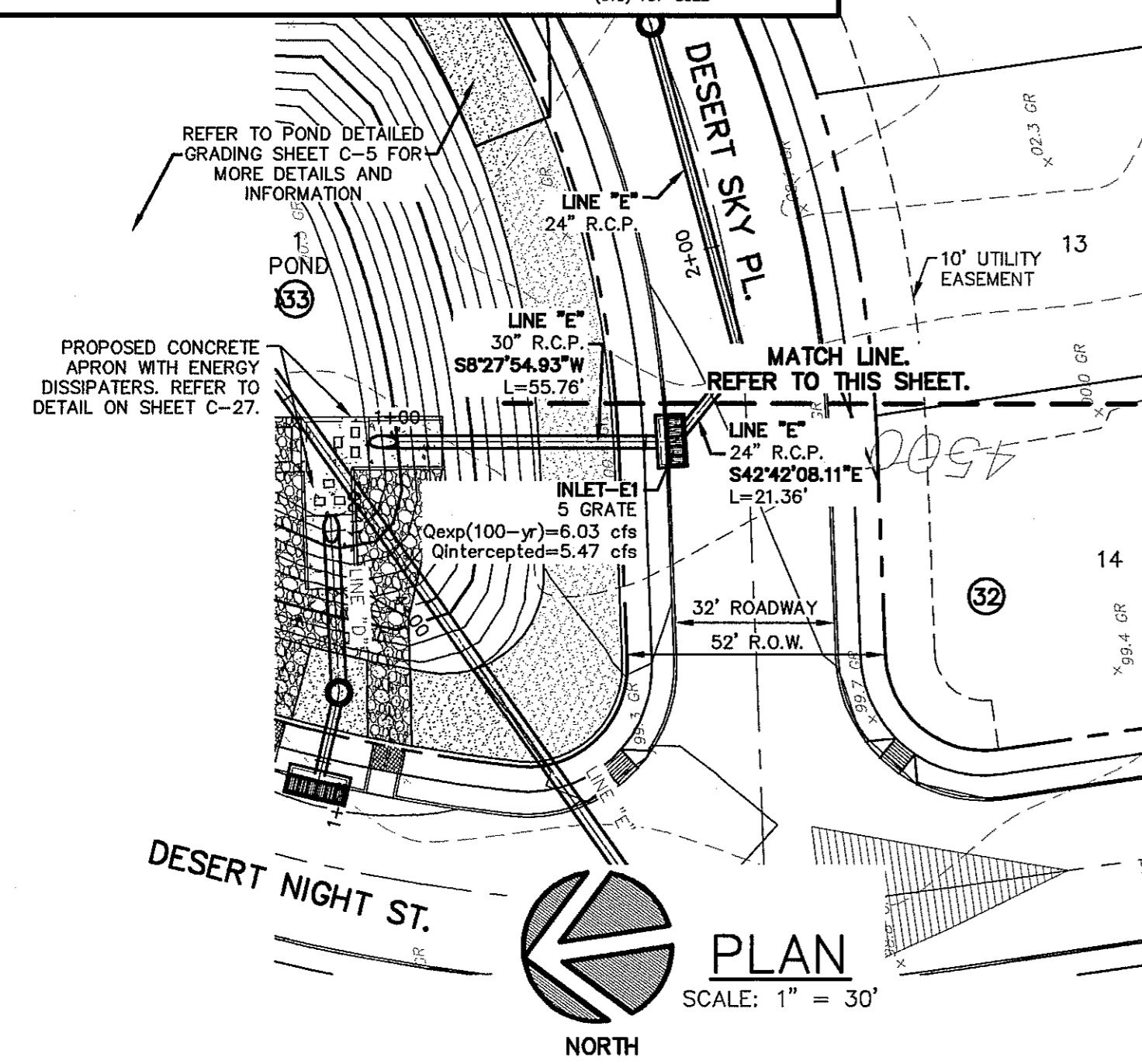
PROFESSIONAL SEAL:
STATE OF TEXAS
REGISTERED PROFESSIONAL ENGINEER
ROBERT J. GONZALES
08920
EXPIRES 09/30/2019

WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:

CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION AND/OR RELOCATION OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK.

- | | | | |
|---|--|---|--|
| TEXAS GAS SERVICE
4700 POLLARD STREET
EL PASO, TEXAS 79906
(800) 344-8377 | EL PASO ELECTRIC CO.
501 WEST SAN ANTONIO ST.
EL PASO, TEXAS 79901
(800) 245-4545 | EL PASO WATER UTILITIES
PUBLIC SERVICE BOARD
1154 HAWKINS BLVD.
EL PASO, TEXAS 79925
(800) 344-8377 | CITY OF EL PASO
STREETS AND MAINTENANCE
7968 SAN PAULI DR.
EL PASO, TEXAS 79907
(915) 821-8480 |
| AT&T INCORPORATED
11500 PELICANO DRIVE
EL PASO, TEXAS 79935
(800) 344-8377 | TIME WARNER CABLE
#20 CONCORD STREET
EL PASO, TEXAS 79906
(800) 344-8377 | TEXAS EXCAVATION SAFETY
SYSTEM (DIG TEST)
ANYWHERE IN TEXAS
(800) 344-8377 | TEXAS DEPARTMENT OF TRANSPORTATION
4201 HOWARD PASS DR.
EL PASO, TEXAS 79904
(915) 757-5922 |



LEGEND:

- H.P. HIGH POINT
- L.P. LOW POINT
- DRAINAGE FLOW DIRECTION
- XX LOT NUMBER
- (X) BLOCK NUMBER

NOTE:
ALL DIMENSIONS SHOWN ARE FROM R.O.W./PROPERTY LINE TO CENTER OF STORM SEWER PIPE

REFERENCES - BENCHMARK

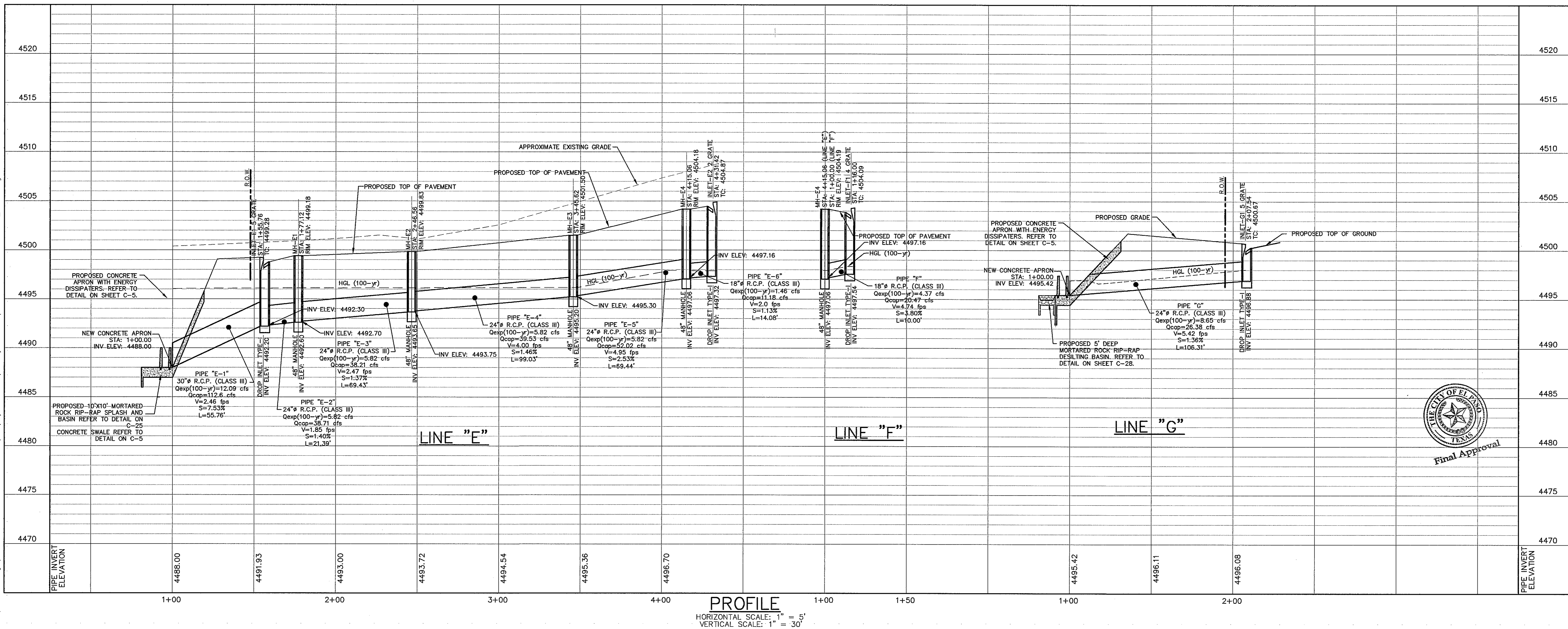
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET
ELEVATION = 4362.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

QUANTUM
engineering
INCORPORATED
Texas Registered Engineering Firm F-005146

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7572
F 915.532.7573

Professional Seal: Robert Gonzalez, Professional Engineer, No. 89920, State of Texas.



PROJECT TITLE

**FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS**
EL PASO COUNTY, TEXAS

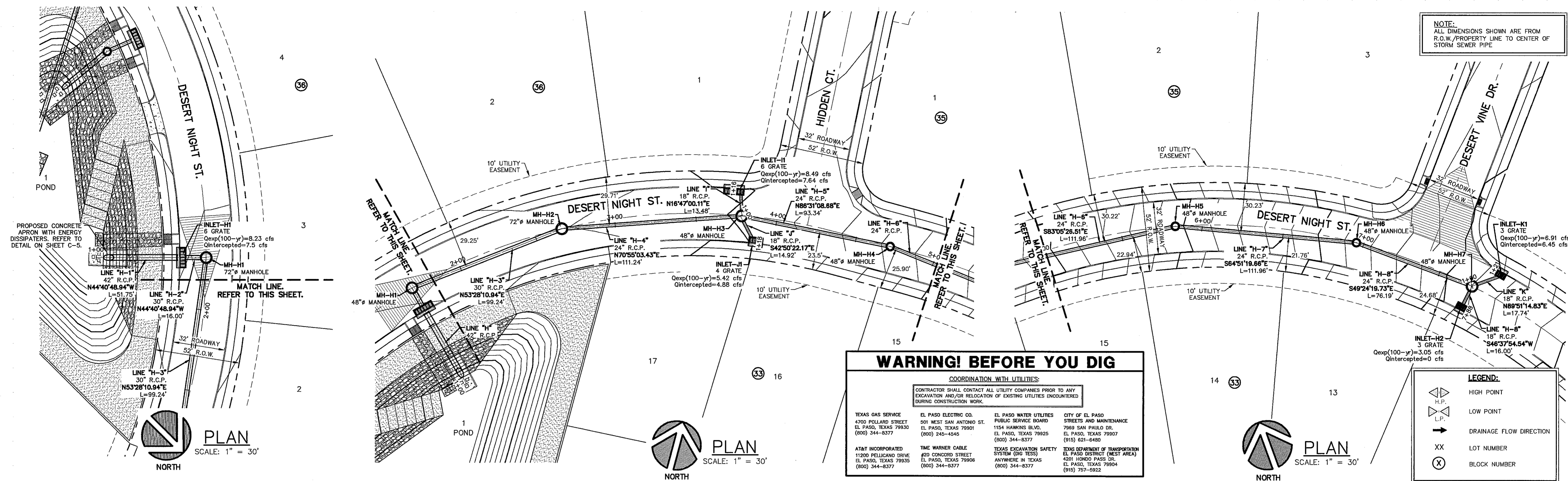
SHEET TITLE

**STORM WATER PLAN
AND PROFILE**
LINE "E"
LINE "F"
LINE "G"

SHEET NO.

C-20
20 OF 49 SHEETS

Oct 28, 2016 8:49am - mnted
C:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\Civil\City Comments\3rd City Submittal\C-19-20 Storm Line A-C P&P_recover.dwg



PLAN
SCALE: 1" = 30'
NORTH

PLAN
SCALE: 1" = 30'
NORTH

PLAN
SCALE: 1" = 30'
NORTH

WARNING! BEFORE YOU DIG

COORDINATION WITH UTILITIES:
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TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7969 SAN PAULO DR. EL PASO, TEXAS 79907 (915) 621-6489
AT&T INCORPORATED 11200 PELICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE #20 CONCORD STREET EL PASO, TEXAS 79908 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (DIG TESS) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HORDO PASS DR. EL PASO, TEXAS 79904 (915) 757-5922

LEGEND:

- ▲ H.P. HIGH POINT
- ▼ L.P. LOW POINT
- DRAINAGE FLOW DIRECTION
- XX LOT NUMBER
- ⊗ BLOCK NUMBER

NOTE:
ALL DIMENSIONS SHOWN ARE FROM R.O.W./PROPERTY LINE TO CENTER OF STORM SEWER PIPE

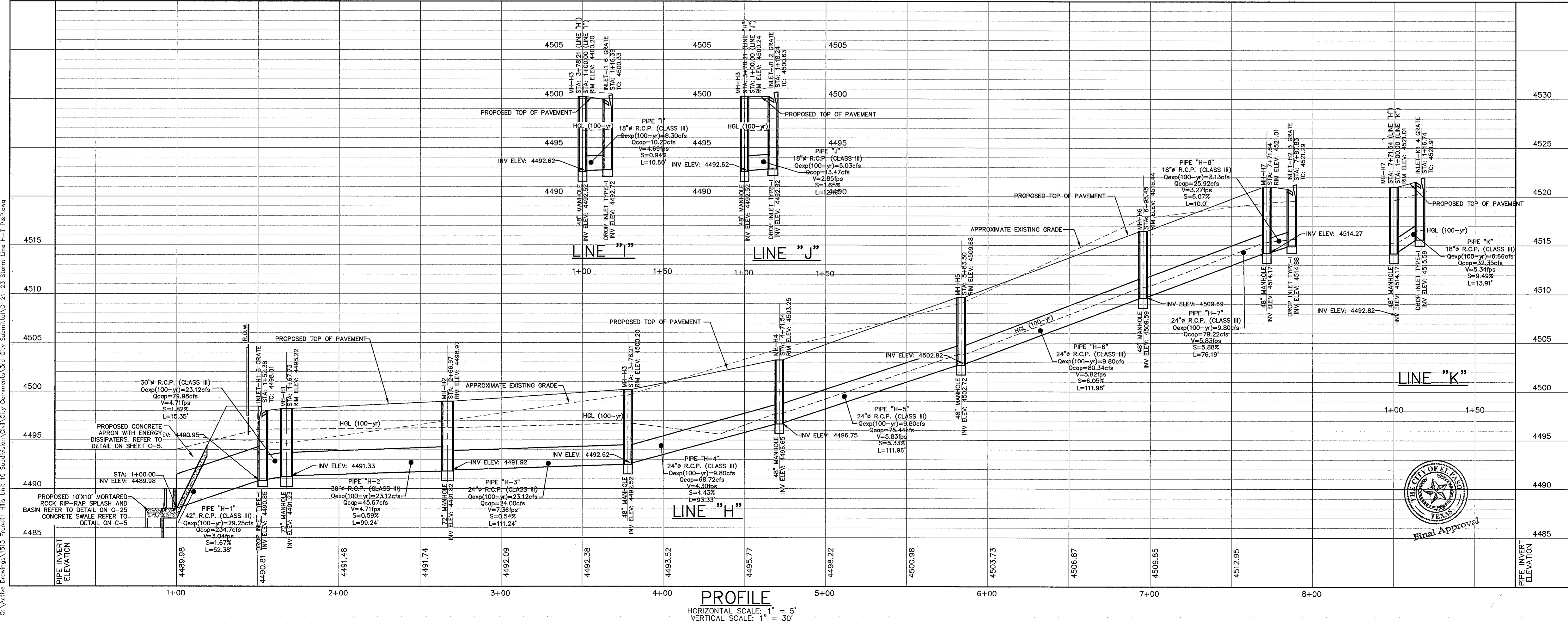
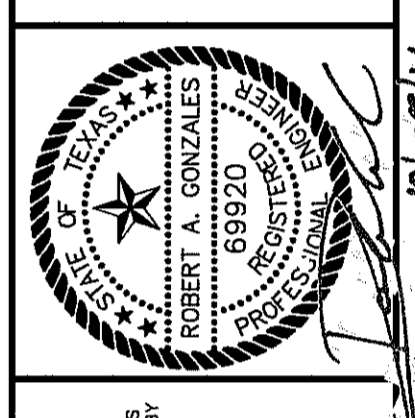
REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET
ELEVATION = 4382.20 (GTY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

QUANTUM
ENGINEERING
INCORPORATED
Texas Registered Engineering Firm F-005146

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7372
F 915.532.7373



PROFILE
HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 30'

SCALE:
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 5'

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET NO.
C-21
21 OF 49 SHEETS

DESIGNER
M.A.G.

DRAWN BY
C.A.D.

CHECKED BY
R.A.G.

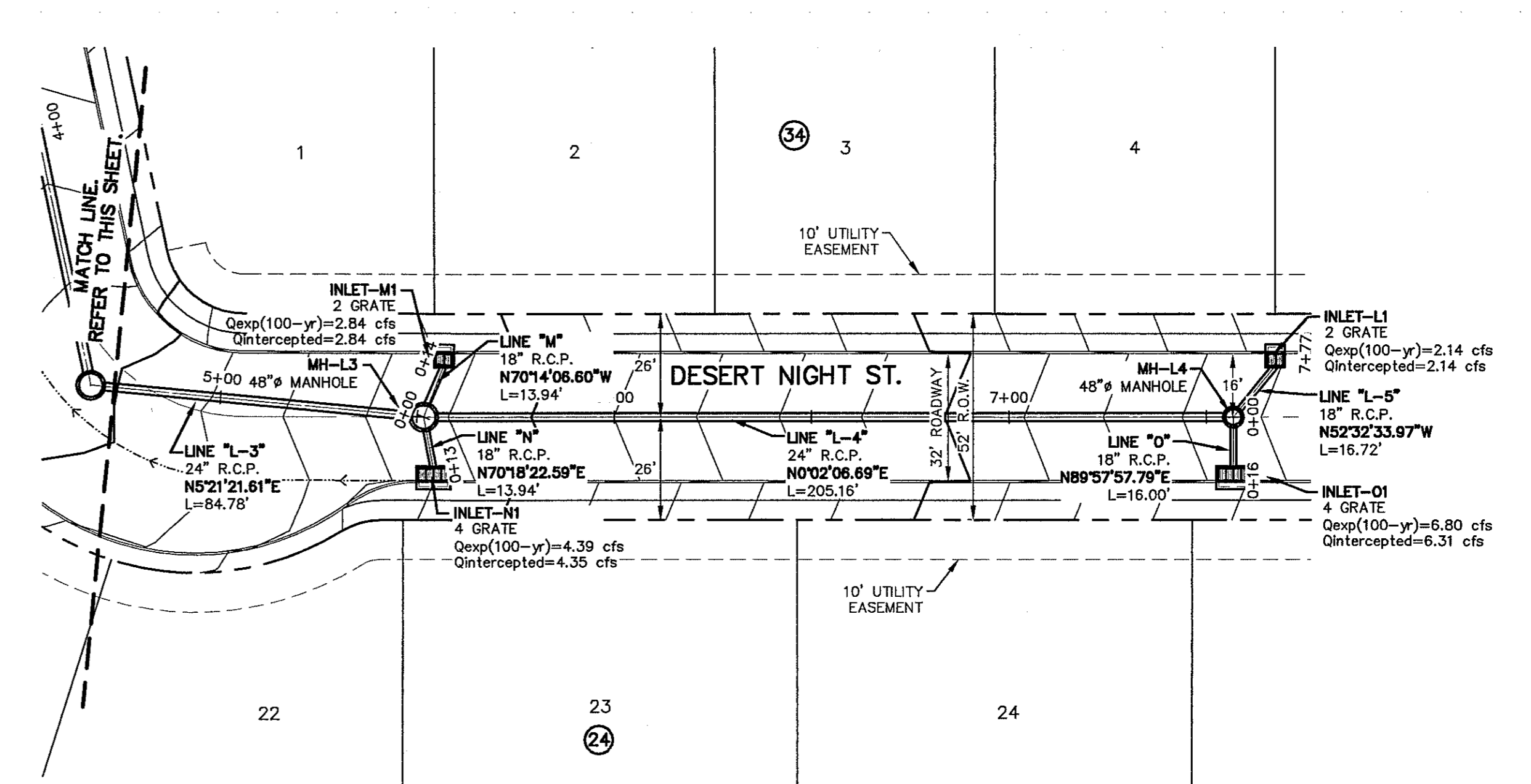
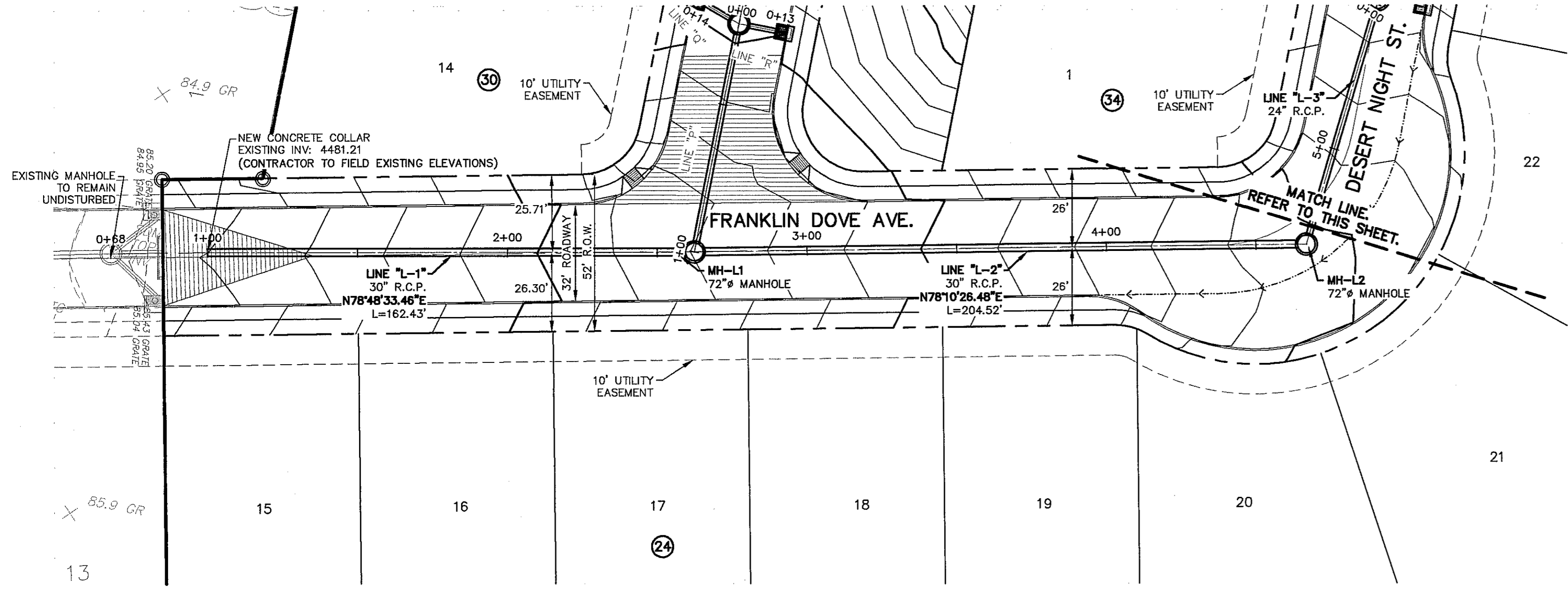
APPROVED BY
J.S.L.

DATE
OCTOBER-2018

THE CITY OF EL PASO TEXAS

Final Approval

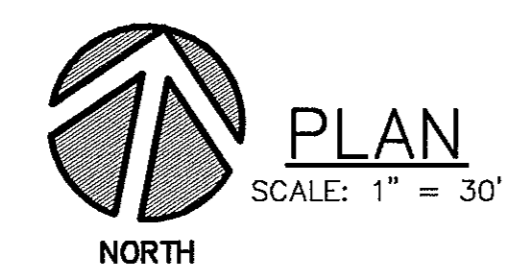
Oct 27, 2018 9:08am - mnted
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WARNING! BEFORE YOU DIG

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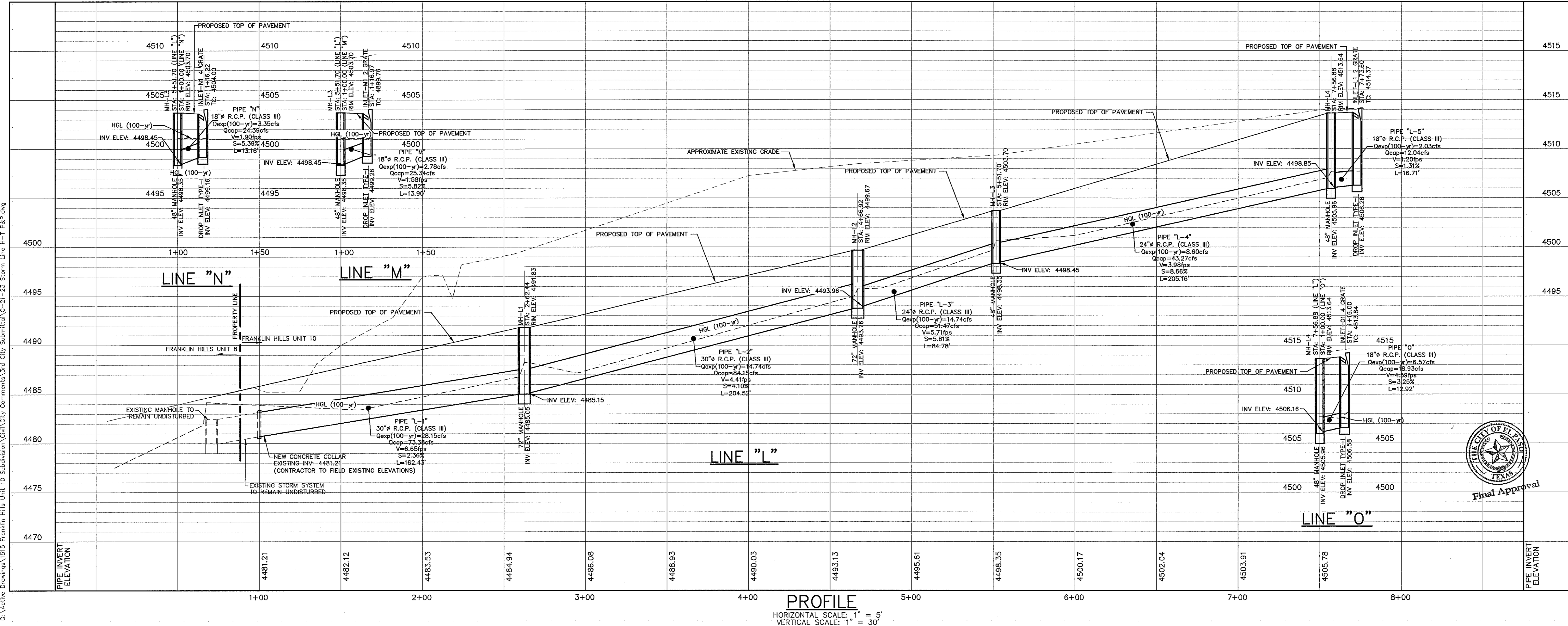
TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-6545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79825 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7909 SAN PABLO DR. EL PASO, TEXAS 79907 (915) 621-6480
AT&T INCORPORATED 11200 FELLERMAN DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE 400 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (DB TEST) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 757-5822



LEGEND:

- ▲ HIGH POINT
- ▼ LOW POINT
- DRAINAGE FLOW DIRECTION
- XX LOT NUMBER
- ⊗ BLOCK NUMBER

NOTE:
 ALL DIMENSIONS SHOWN ARE FROM R.O.W./PROPERTY LINE TO CENTER OF STORM SEWER PIPE



PROFILE
 HORIZONTAL SCALE: 1" = 5'
 VERTICAL SCALE: 1" = 30'

REFERENCES - BENCHMARK
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM)
 CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

414 Executive Center Blvd
 Ste 200 El Paso TX 79902
 P 915.532.7272
 F 915.532.7373

QUANTUM
 engineering
 incorporated
 Texas Registered Engineering Firm F-005146

THE STATE OF TEXAS
 ENGINEERING BOARD
 ROBERT A. GONZALES
 09200 GONZALES
 PROFESSIONAL SEAL

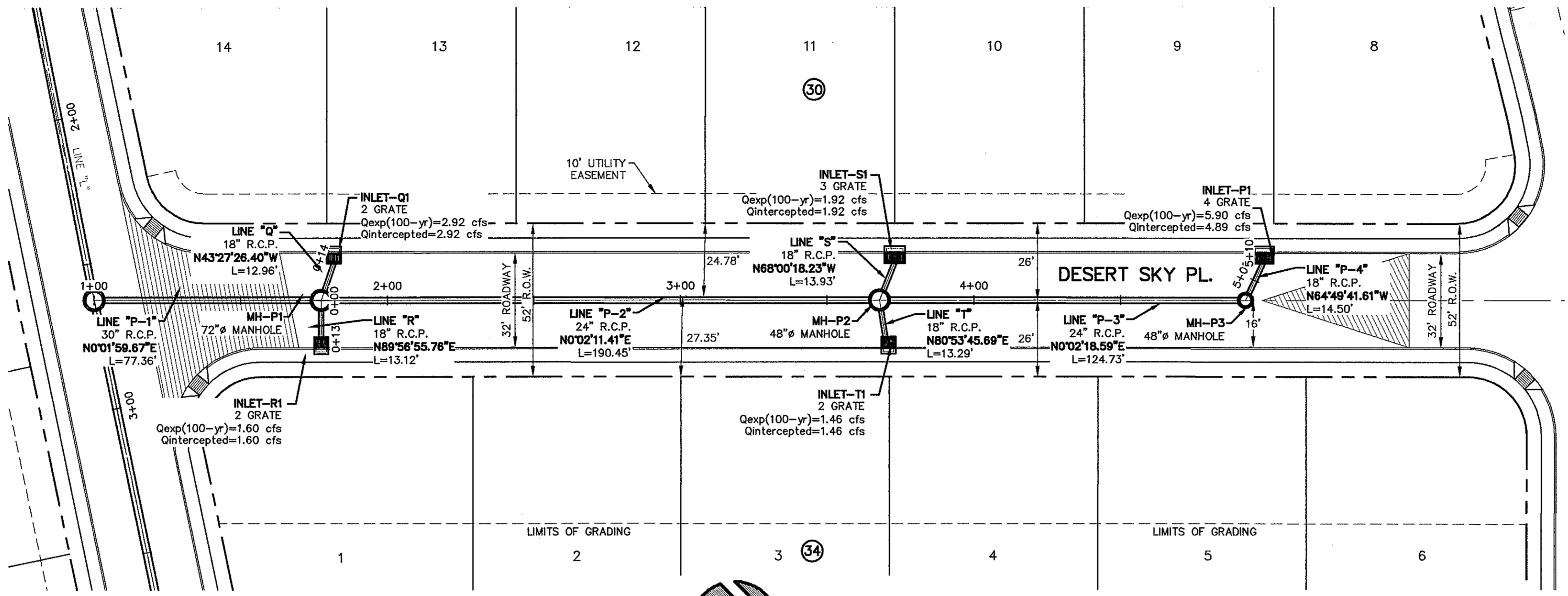
SCALE: 1" = 30'
 HORIZONTAL: 1" = 5'
 VERTICAL: 1" = 30'
 DATE: OCTOBER-2016
 DESIGN BY: M.A.S.
 DRAWN BY: CADD
 CHECKED BY: R.A.G.
 APPROVED BY: J.S.L.
 JOB NO. 1515

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
 EL PASO COUNTY, TEXAS

SHEET PLAN AND PROFILE
 LINE "L"
 LINE "M"
 LINE "N"
 LINE "O"

SHEET NO.
C-22
 22 OF 49 SHEETS

C:\272016_0\11em_rmsd
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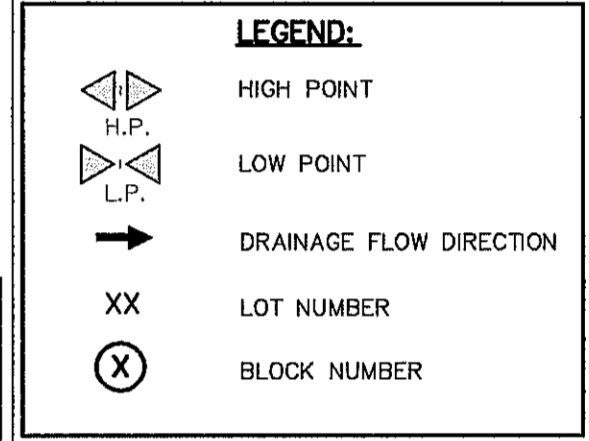


WARNING! BEFORE YOU DIG

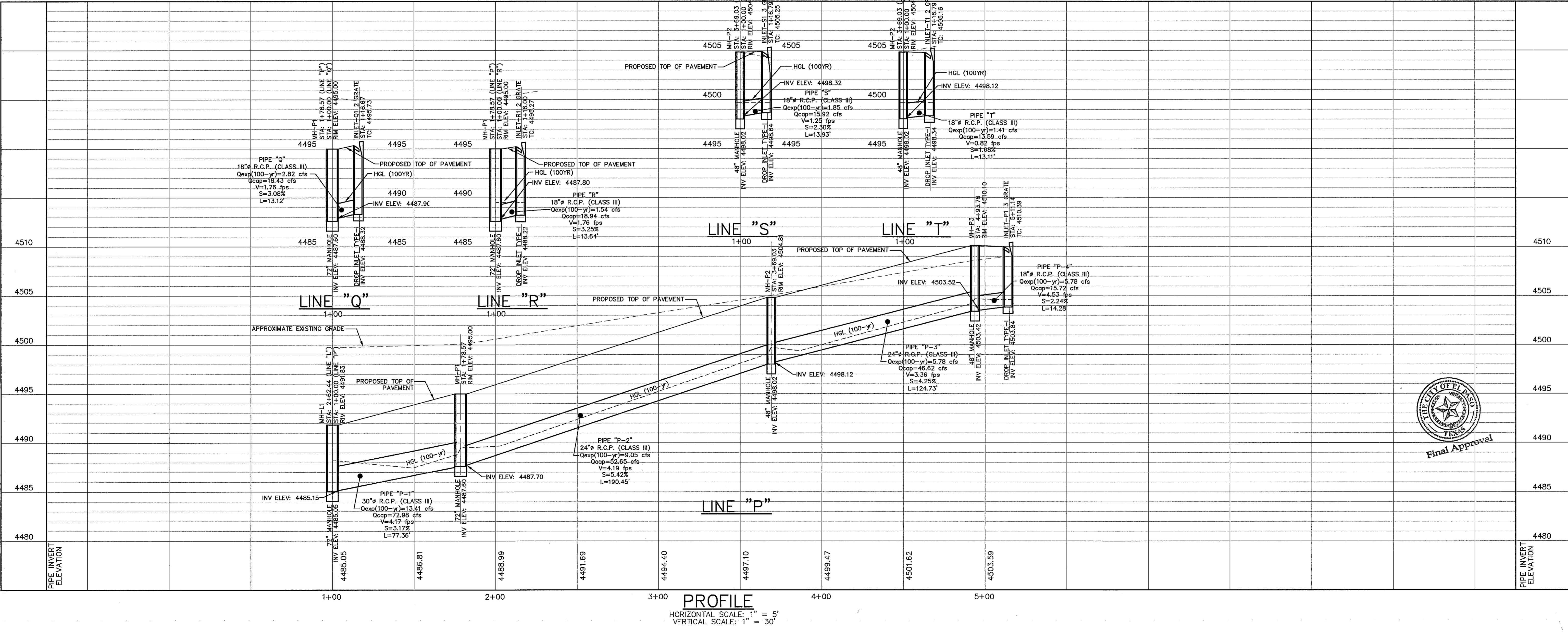
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TEXAS GAS SERVICE 4700 POLLARD STREET EL PASO, TEXAS 79930 (800) 344-8377	EL PASO ELECTRIC CO. 501 WEST SAN ANTONIO ST. EL PASO, TEXAS 79901 (800) 245-4545	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD 1154 HAWKINS BLVD. EL PASO, TEXAS 79925 (800) 344-8377	CITY OF EL PASO STREETS AND MAINTENANCE 7969 SAN PAUL DR. EL PASO, TEXAS 79907 (915) 821-6480
AT&T INCORPORATED 11200 PELLICANO DRIVE EL PASO, TEXAS 79935 (800) 344-8377	TIME WARNER CABLE #20 CONCORD STREET EL PASO, TEXAS 79906 (800) 344-8377	TEXAS EXCAVATION SAFETY SYSTEM (DIG TEST) ANYWHERE IN TEXAS (800) 344-8377	TEXAS DEPARTMENT OF TRANSPORTATION EL PASO DISTRICT (WEST AREA) 4201 HONDO PASS DR. EL PASO, TEXAS 79904 (915) 797-5922



NOTE:
ALL DIMENSIONS SHOWN ARE FROM R.O.W./PROPERTY LINE TO CENTER OF STORM PIPE



REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE _____ **REVISION** _____ **BY** _____

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7373
F 915.532.7373

QUANTUM
Engineering
INCORPORATED
Texas Registered Engineering Firm F-005146

SEAL OF THE STATE OF TEXAS
ROBERT J. GONZALES
Professional Engineer
No. 89920
Exp. 08/31/2016

SCALE: 1" = 30'
HORIZONTAL: 1" = 5'
VERTICAL: 1" = 30'
CONTOUR INTERVAL: _____

DATE: OCTOBER-2016
DESIGN BY: M.A.G.
DRAWN BY: CAD
CHKD BY: R.A.G.
APPROV BY: R.A.G.
JOB NO.: 1515

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
STORM WATER PLAN AND PROFILE
LINE "P"
LINE "Q"
LINE "R"
LINE "S"
LINE "T"

SHEET NO.
C-23
23 OF 49 SHEETS

04_27_2016 9:12am mmad
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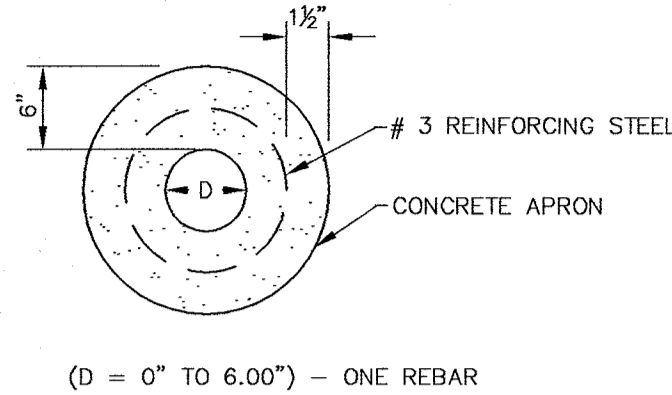
CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS				
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.00	6	1	1 1/2	1 1/2
6.01 TO 18.00	8	2	1 1/2	1 1/2
18.01 AND OVER	12	3	1 1/2	1 1/2

CONSTRUCTION NOTES:

1. ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
2. ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
3. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
4. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
5. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

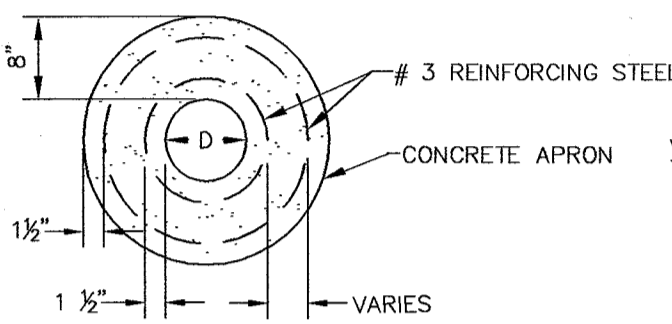
GENERAL NOTES:

1. THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED)
2. TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.



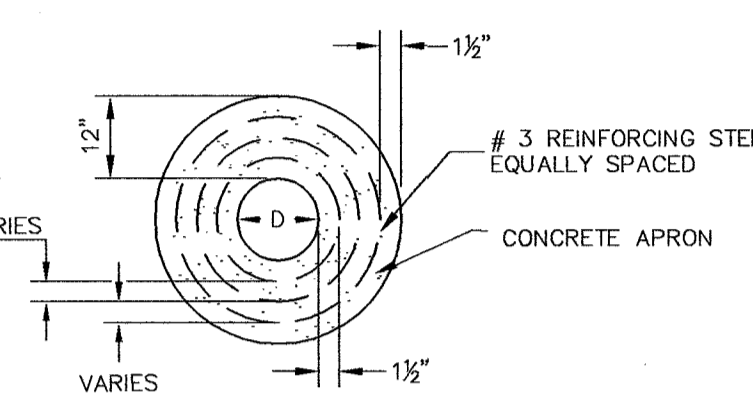
(D = 0" to 6.00") - ONE REBAR

PENETRATION APRON
PLAN VIEW - SCALE: N.T.S.



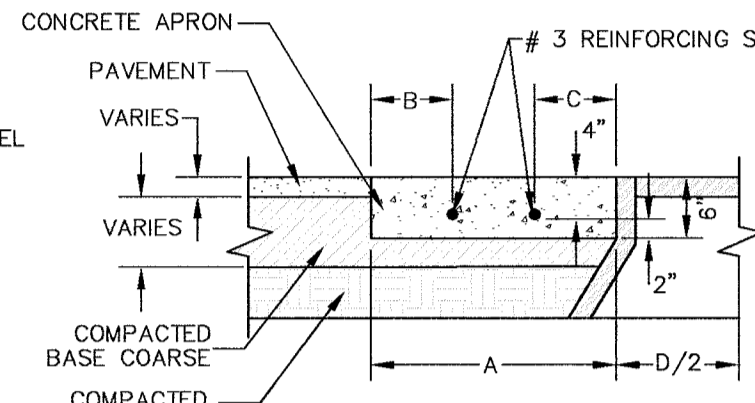
(D = 6.01" to 18.00") - TWO REBAR

PENETRATION APRON
PLAN VIEW - SCALE: N.T.S.

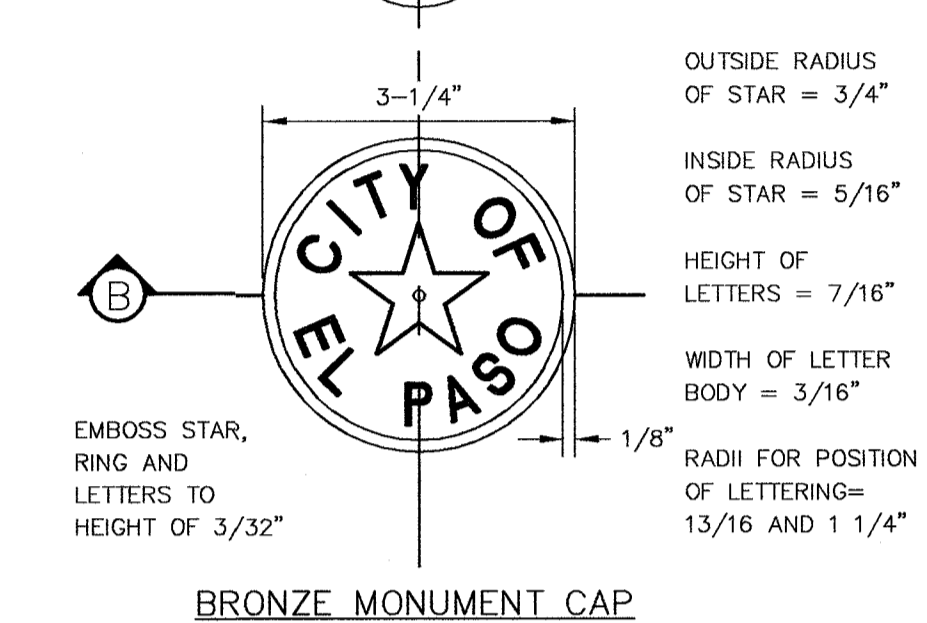
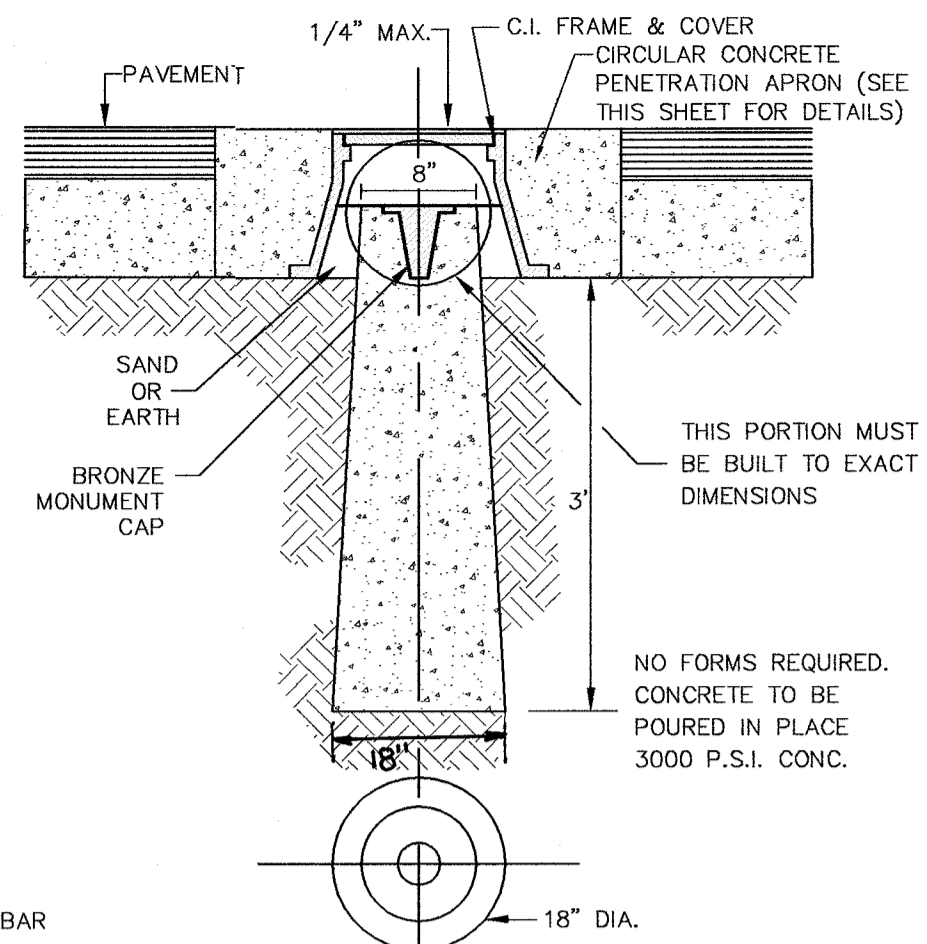


(D = 18.01" AND OVER) - THREE REBAR

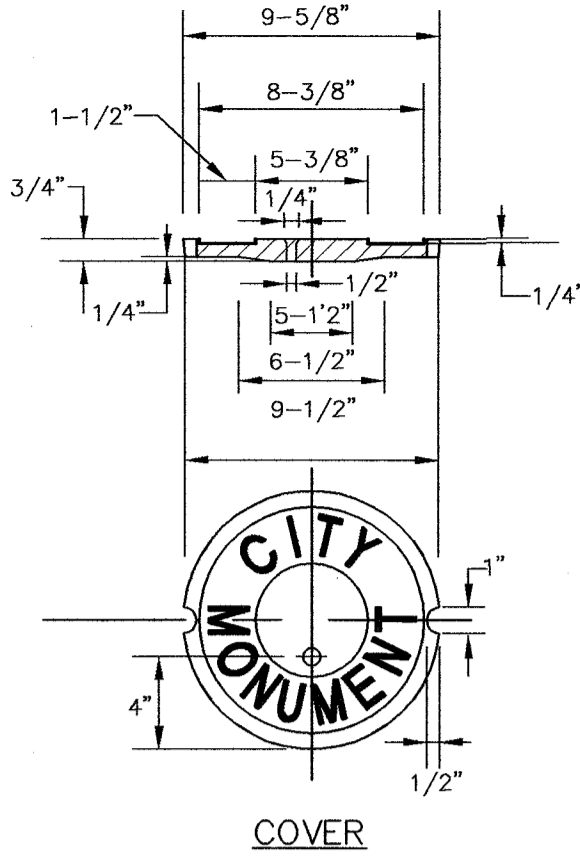
PENETRATION APRON
PLAN VIEW - SCALE: N.T.S.



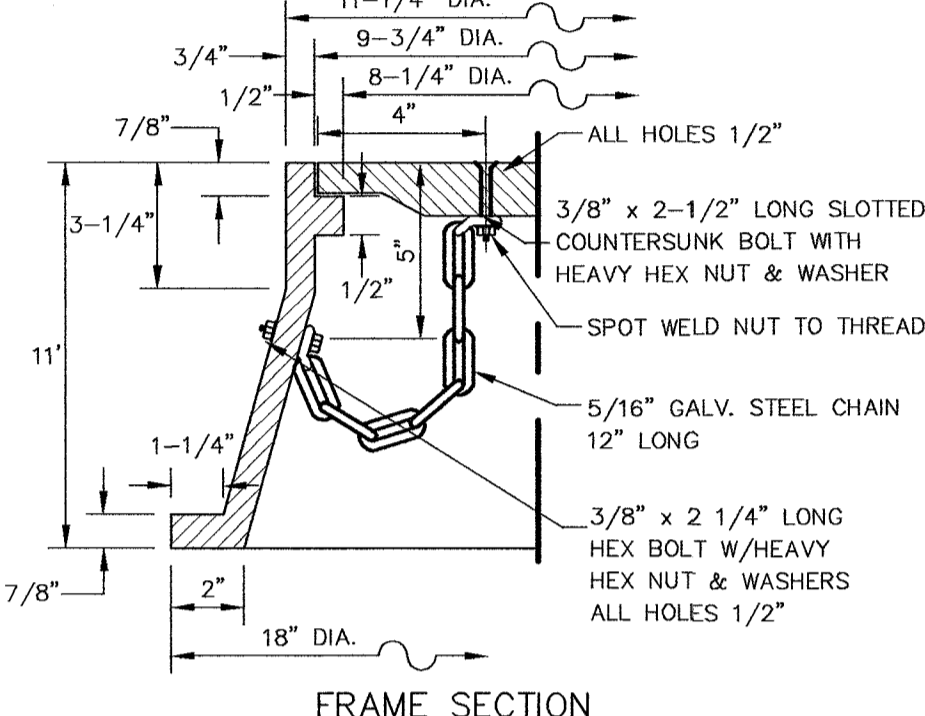
PENETRATION APRON
SECTION VIEW - SCALE: N.T.S.



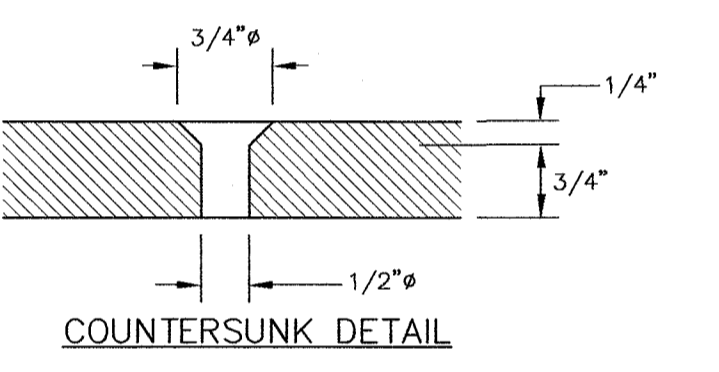
BRONZE MONUMENT CAP



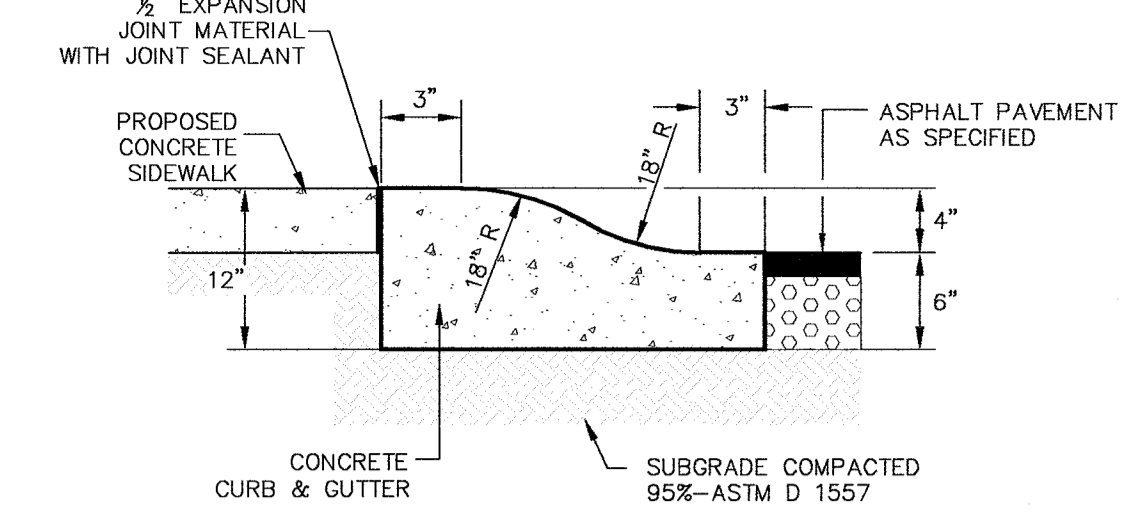
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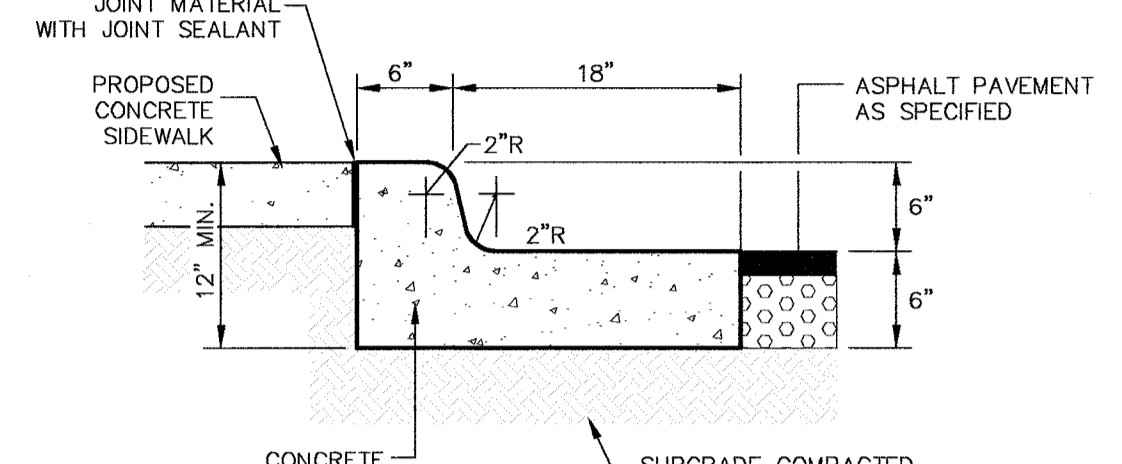
FRAME SECTION



COUNTERSUNK DETAIL



4\"/>

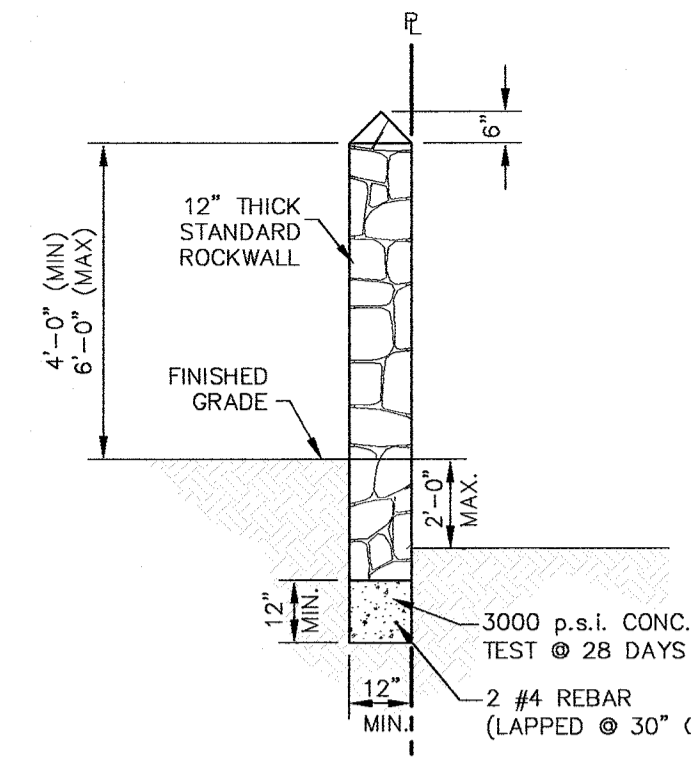


6\"/>

- CURB NOTES:**
1. CONCRETE CURB SHALL BE 3000 PSI MIN. @ 28 DAYS, ASTM TYPE II, PORTLAND CEMENT.
 2. NEW PAVEMENT STRUCTURE SUBGRADE IMPROVEMENTS SHALL BE EXTENDED THROUGH NEW CURB LIMITS.
 3. CONTRACTION JOINT SHALL BE 1/8\"/>
 4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING CURBS AND AT 100' O.C. WHEN SLIP FORMING.
 5. EXPANSION JOINTS REQUIRED AT ALL CURB RETURNS.
 6. EXPANSION JOINTS SHALL CONSIST OF 1/2\"/>
 7. JOINT SEALANT COMPOUND SHALL BE SIKAFLEX-2C NS EZ MIX OR ENGINEER APPROVED EQUIVALENT.
 8. EXPANSION JOINT FILLER SHALL BE PLACED ON BACK OF CURB WHEREVER CURB ABUTS SIDEWALK OR MASONRY STRUCTURES.

CONCRETE CURB & GUTTER DETAIL

SCALE: N.T.S.



ROCKWALL NOTES

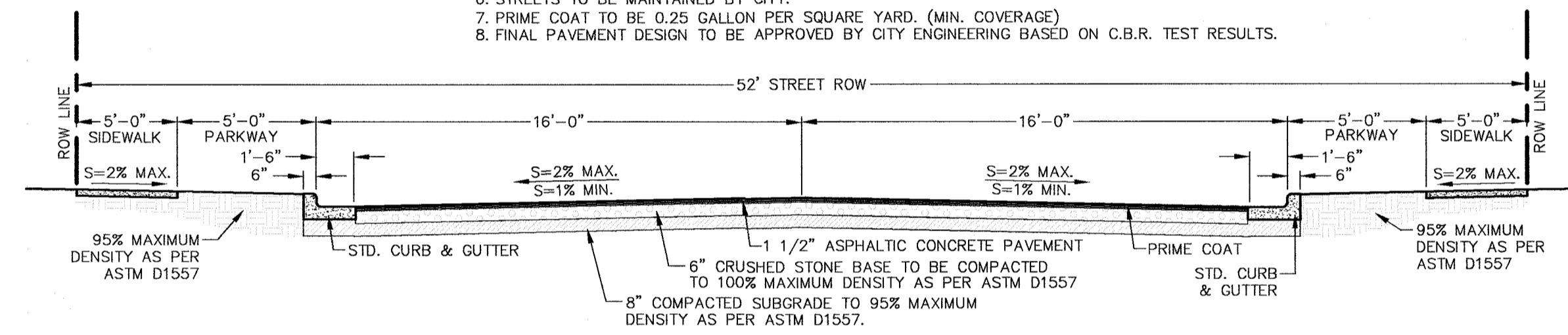
1. STONE FOR ROCKWALL SHALL BE NATIVE ROCK, SOUND AND FREE FROM LOOSE OR FRIBLE INCLUSIONS. THE STONE SHALL BE DENSE AND RESISTANT TO THE ACTION OF AIR AND WATER, AND SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. MAXIMUM STONE SIZE SHALL NOT EXCEED 18-INCHES.
2. MORTAR FOR ROCKWALLS SHALL BE ASTM C270, TYPE "S" (1800 PSI MIN. @ 28 DAYS) AND PROPORTIONED BY VOLUME AS FOLLOWS:
PORTLAND CEMENT: 1 PART LIME: 1/4 PART SAND: 3-1/2 PARTS
3. CONCRETE FOR ROCKWALL FOOTINGS SHALL HAVE A COMPRESSIVE STRENGTH OF (F'c) 3000 PSI @ 28 DAYS (MIN.); REINFORCING STEEL SHALL BE GRADE 60 (Fy 60 KSI), ASTM A615.
4. ROCKWALL FOOTINGS SHALL BEAR ON PREPARED SUBGRADE OR STRUCTURAL FILL COMPACTED TO 95% MAXIMUM DENSITY AS PER ASTM D1557.
5. REBAR SHALL HAVE A MINIMUM OF 2 INCH COVER IN CONCRETE.
6. OVER-EXCAVATION FOR ROCKWALL FOOTINGS SHALL BE BACKFILLED WITH LEAN CONCRETE.
7. ROCK SHALL BE EMBEDDED A MINIMUM OF 4-INCHES INTO FOOTING WHILE CONCRETE IS IN A PLASTIC STATE.
8. PROVIDE 1/4 INCH EXPANSION JOINTS @ EVERY 100 LINEAR FEET.
9. ROCKWALL MORTAR JOINTS SHALL NOT EXCEED ONE (1) INCH.
10. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
11. ALL STONE FOR ROCKWALL SHALL BE FRACTURED QUARRIED ROCK. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.
12. ANY CHANGES IN WALL DIRECTION, ADDITIONAL WALL HEIGHT, OR CHANGES IN FOOTING ELEVATION SHALL REQUIRE ADDITIONAL STRUCTURAL DESIGN BY A LICENSED STRUCTURAL ENGINEER.
13. BACKFILL MATERIAL SHALL CONSIST OF WELL-DRAINED, COARSE SOILS, OR FINE SILTY SANDS WITH NO CLAY CONTENT.
14. SURCHARGE LOADING CONDITIONS SHALL REQUIRE ADDITIONAL STRUCTURAL DESIGN BY A LICENSED STRUCTURAL ENGINEER. REVISED LOADING CONDITIONS AND DESIGNS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL TO CITY OF EL PASO BUILDING SERVICES DEPARTMENT AT THE TIME BUILDING CONSTRUCTION PLANS ARE SUBMITTED.

STANDARD 6' ROCKWALL DETAIL

SCALE: N.T.S.

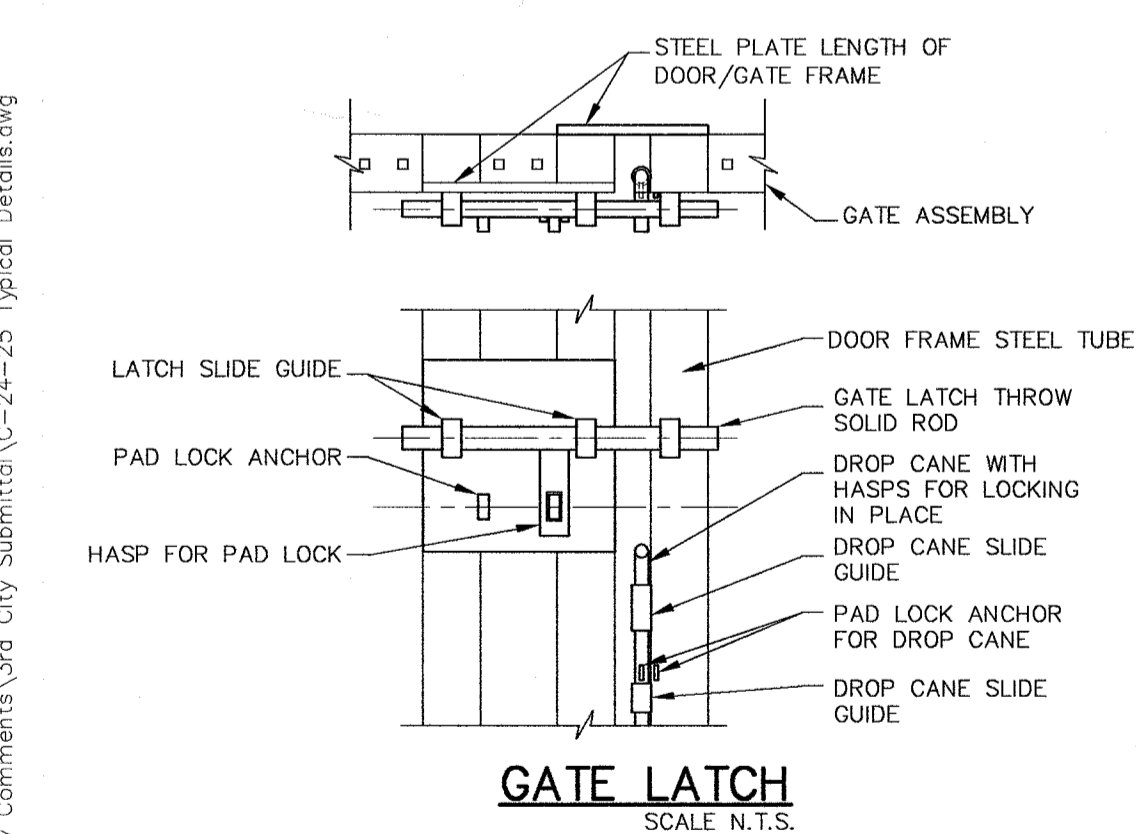
NOTES:

1. CONCRETE CURB, GUTTER, AND RETURNS SHALL BE 3,000 P.S.I. MIN.
2. DUMMY JOINT REQUIRED AT 10' O.C.
3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURB RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT CURB & GUTTER DIMENSION.
4. SUBGRADE UNDER CURB MUST BE FORMED AND COMPACTED TO 95% ASTM D1557.
5. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING CURBS.
6. STREETS TO BE MAINTAINED BY CITY.
7. PRIME COAT TO BE 0.25 GALLON PER SQUARE YARD. (MIN. COVERAGE)
8. FINAL PAVEMENT DESIGN TO BE APPROVED BY CITY ENGINEERING BASED ON C.B.R. TEST RESULTS.



52' RESIDENTIAL SUBCOLLECTOR STREET

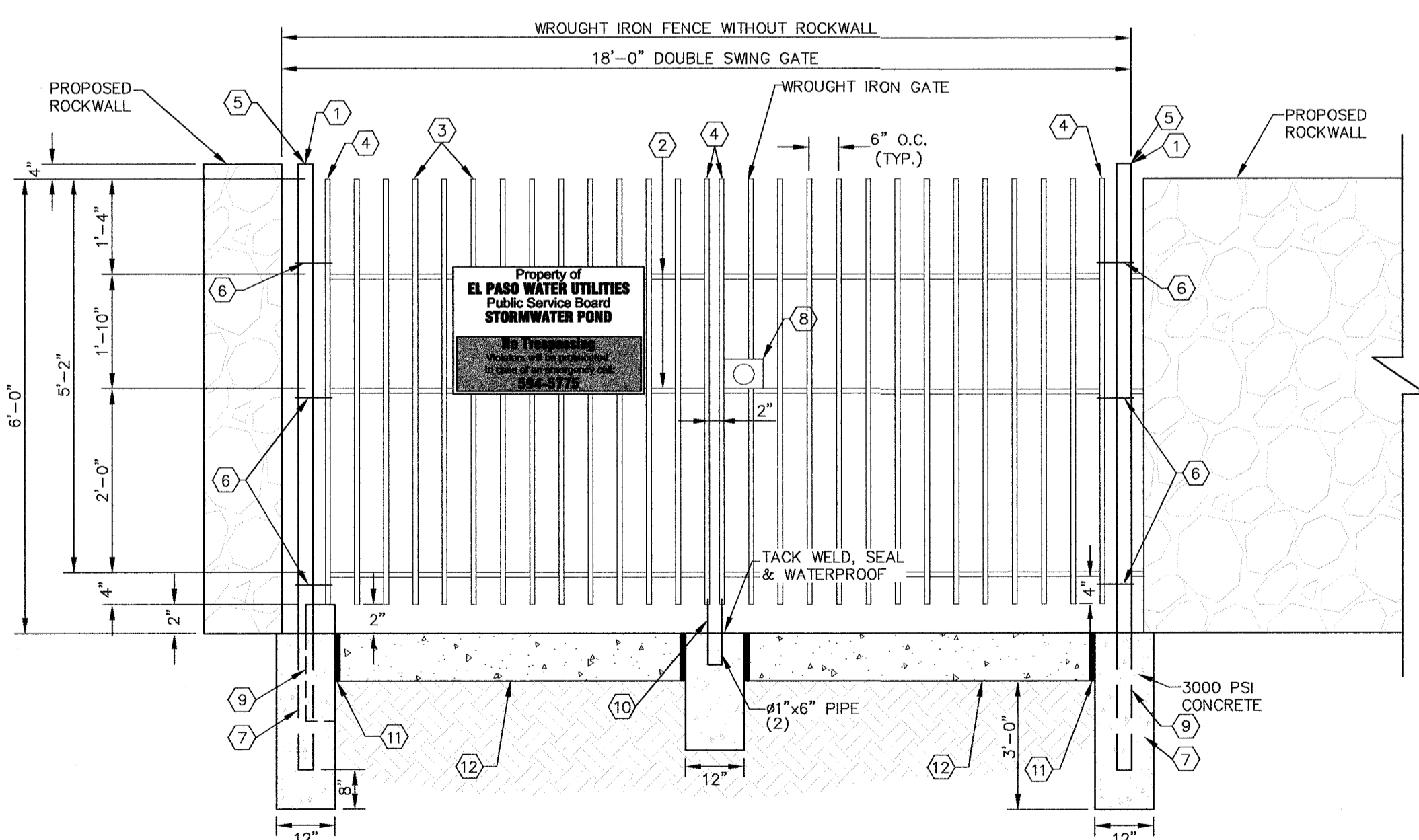
SCALE: N.T.S.



GATE LATCH

SCALE: N.T.S.

- GENERAL NOTES:**
1. CONTRACTOR TO SUBMIT AN APPROVED TRENCH SAFETY PLAN AS PER OSHA STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING IMPROVEMENTS WITHIN THE LIMITS OF THE TRENCH SAFETY ZONE. ANY DAMAGES RESULTING FROM THE CONTRACTOR'S WORK, SHALL BE REPAIRED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR, AT NO COST TO THE OWNER. AREA TO BE GRADED TO ORIGINAL CONDITIONS AND ELEVATIONS.
 2. SCREENINGS SHALL BE 3-INCH THICK, BRICK RED COLORED, AND COMPACTED TO MINIMUM 95% AS PER ASTM D-1557.

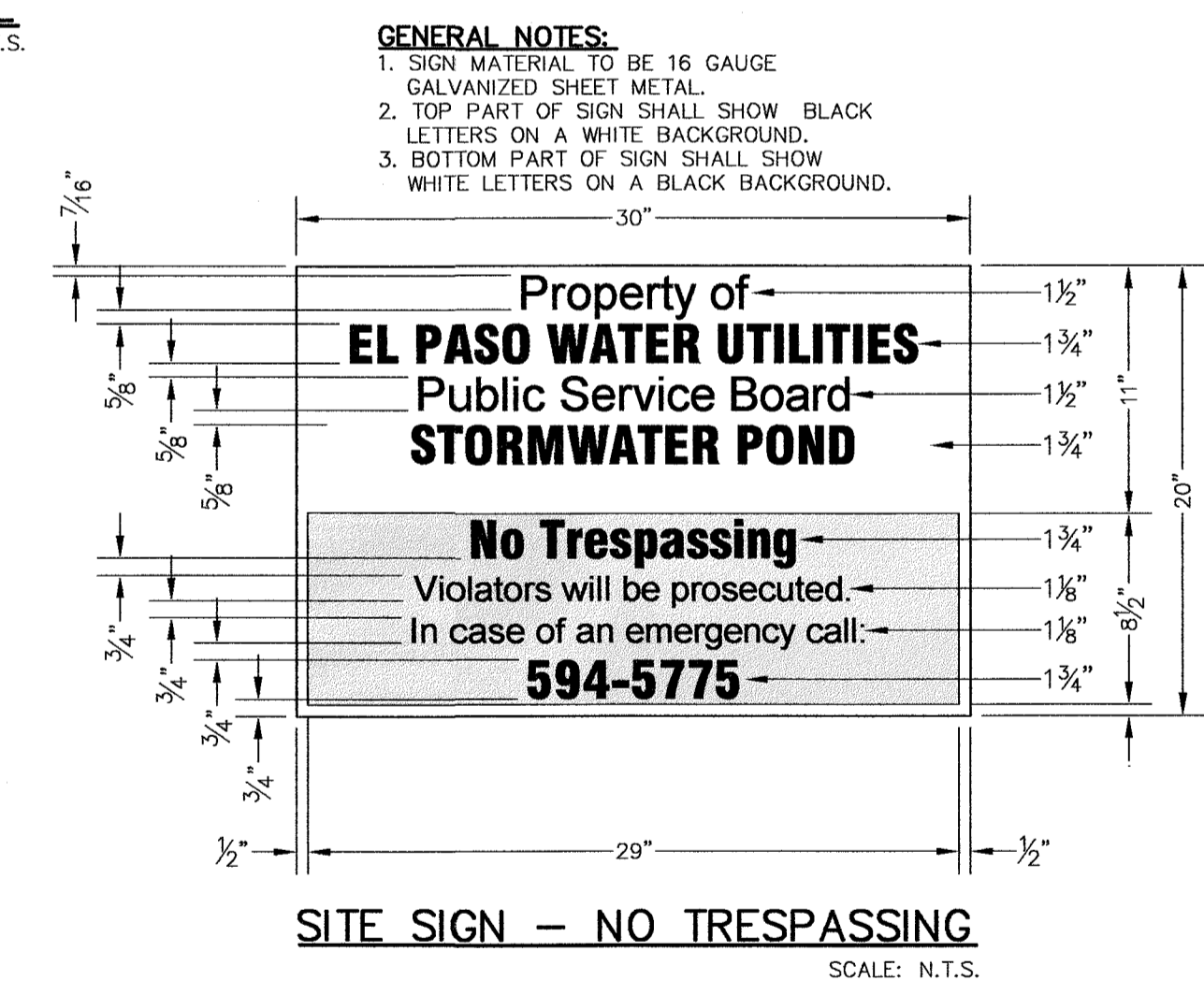


KEY NOTES

- 1) 3" x 3" x 3/16" SQUARE STEEL TUBING
- 2) 2" x 1" x 14 GA. RECTANGULAR STEEL TUBING
- 3) 1 1/2" x 1/2" x 16 GA. RECTANGULAR STEEL TUBING
- 4) 2" x 1" x 10 GA. RECTANGULAR STEEL TUBING
- 5) FLAT TOP POLYVINYL CAP ON A SQUARE TUBING
- 6) BOLT HOOK AND STRAP HINGE
- 7) 1' x 3' DEEP 3000 PSI CONCRETE POST FOOTING
- 8) DOUBLE GATE HEAVY DUTY INDUSTRIAL LATCH W/PAD LOCK
- 9) 5" x 5" x 3/8" SQUARE STEEL SLEEVE W/7"x7"x3/8" STEEL BASE PLATE
- 10) CANE BOLT LATCH W/KEEPER 5-8" x 18" LONG (2 REQUIRED)
- 11) EXPANSION JOINT MATERIAL WITH ELASTOMETRIC JOINT SEALANT (TxDOT APPROVED)
- 12) PROPOSED CONCRETE PAVEMENT AS SPECIFIED

WROUGHT IRON FENCE ENTRY GATE

SCALE: N.T.S.



SITE SIGN - NO TRESPASSING

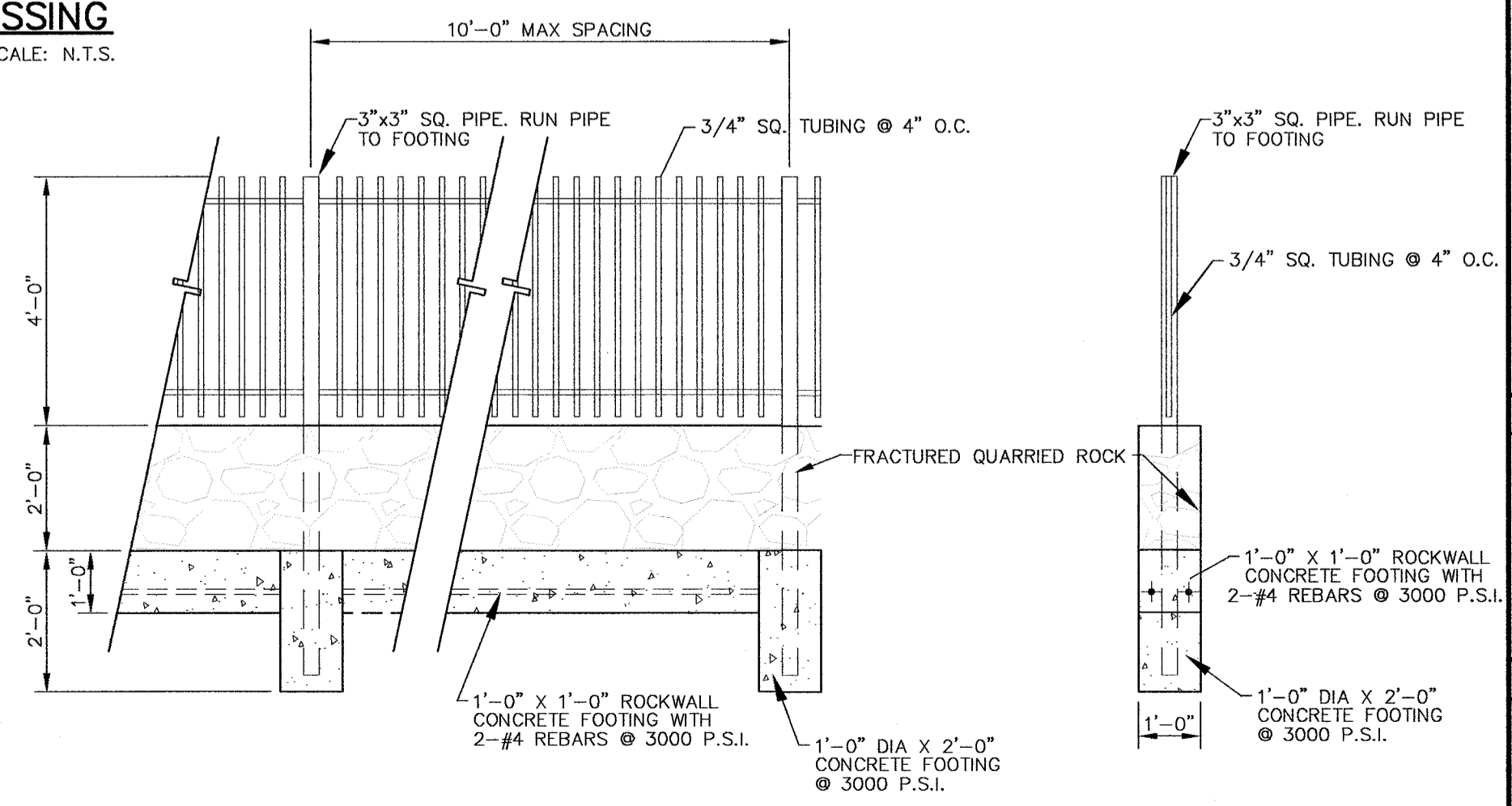
SCALE: N.T.S.

WROUGHT IRON FENCE NOTES:

1. PROVIDE FULL WELDS AT ALL PICKETS, TOP AND BOTTOM RAILS, ALL POST AND RAIL CONNECTIONS AND WHERE TOP RAIL DESIGN ABUTS PICKET OR RAIL.
2. FENCE COMPONENTS AND FIELD REPAIRS SHALL BE SHOP PRIMED (1) COAT AND PAINTED FINISH (2) COATS EXTERIOR OIL BASED, COLOR #308-3 ST. AUGUSTINE, AS MANUFACTURED BY PITTSBURGH PAINTS, OR APPROVED EQUAL.

ROCKWALL NOTES:

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER.
2. MORTAR SHALL BE TYPE "S" 1800 P.S.I. AS PER ASTM C270-73. MORTAR SHALL CONSIST BY VOLUME OF 1 PART PORTLAND CEMENT, 3 1/2 PARTS OF CLEAN, HARD, DURABLE SAND AND 1/4 PART (MORTAR) LIME THOROUGHLY MIXED WITH WATER.
3. ROCKWALL MORTAR JOINTS SHALL NOT EXCEED 3/4" TO 1 1/4".
4. STONE SHALL BE CLEANED, FREE OF DIRT PRIOR TO INSTALLATION.
5. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.



ROCKWALL WITH WROUGHT IRON FENCE AT DRAINAGE R.O.W.

SCALE: N.T.S.

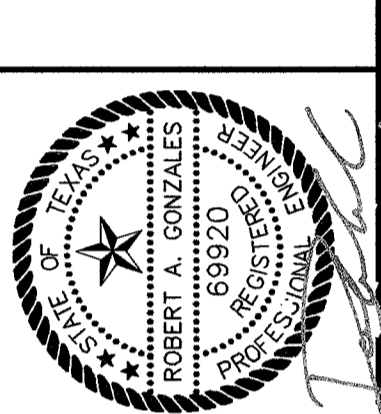
REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTRINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4352.20 (CITY DATUM) CONTOUR INTERVAL: ONE (1) FOOT

BY	REVISION

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QUANTUM
ENGINEERING & CONSULTANTS
INCORPORATED
Texas Registered Engineering Firm F-005146



SCALE: HORIZONTAL: N/A VERTICAL: N/A
CONTOUR INTERVAL: N/A
DATE: OCTOBER-2016
DESIGN BY: M.A.G. CADD
DRAWN BY: J.L.B. R.A.G.
CHKD BY: J.L.B. R.A.G.
JOB NO.: 1515

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE

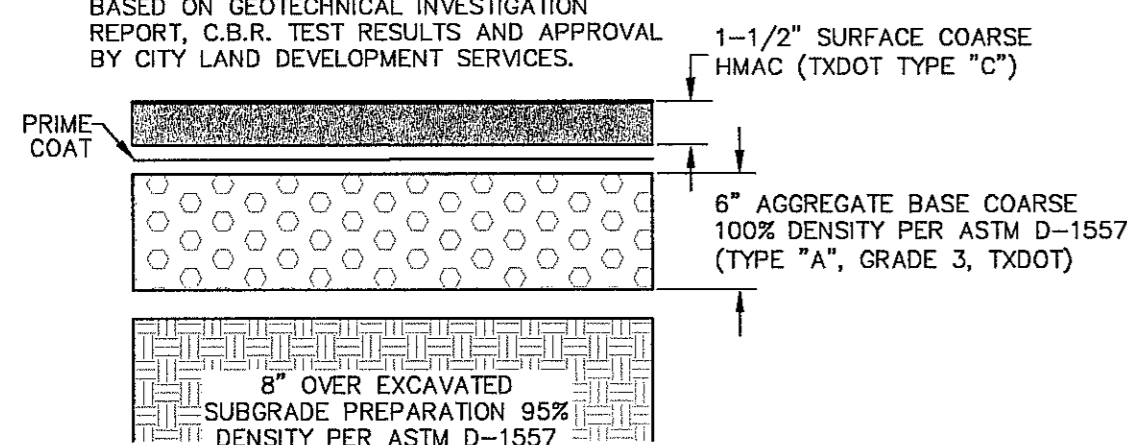
STANDARD DETAILS
(1 OF 2)

SHEET NO.

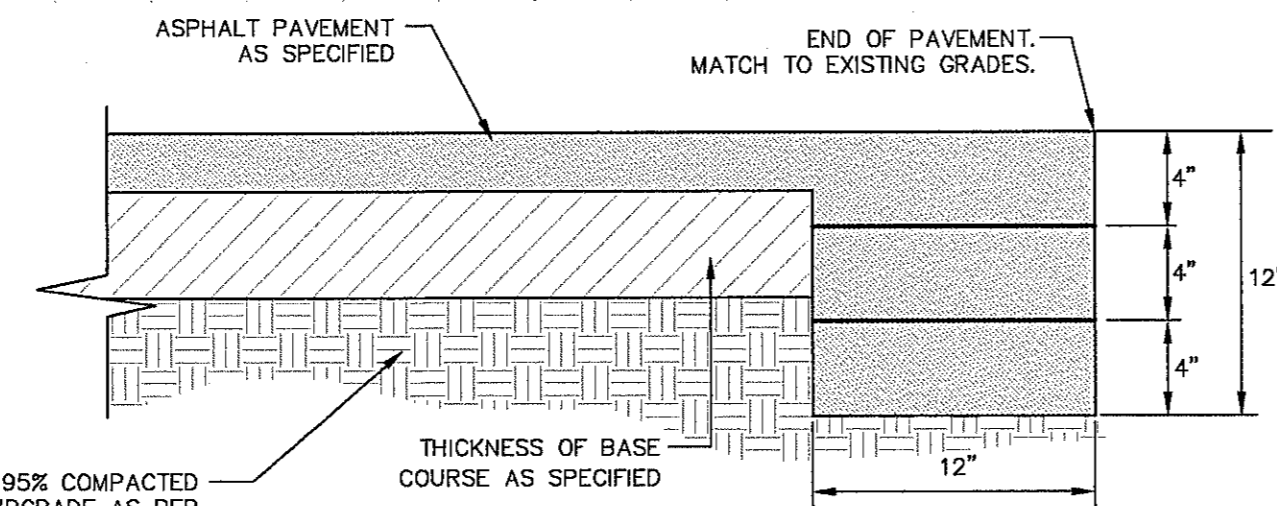
C-24
24 OF 49 SHEETS

NOTE:

FINAL PAVEMENT DESIGN SUBJECT TO CHANGE BASED ON GEOTECHNICAL INVESTIGATION REPORT, C.B.R. TEST RESULTS AND APPROVAL BY CITY LAND DEVELOPMENT SERVICES.

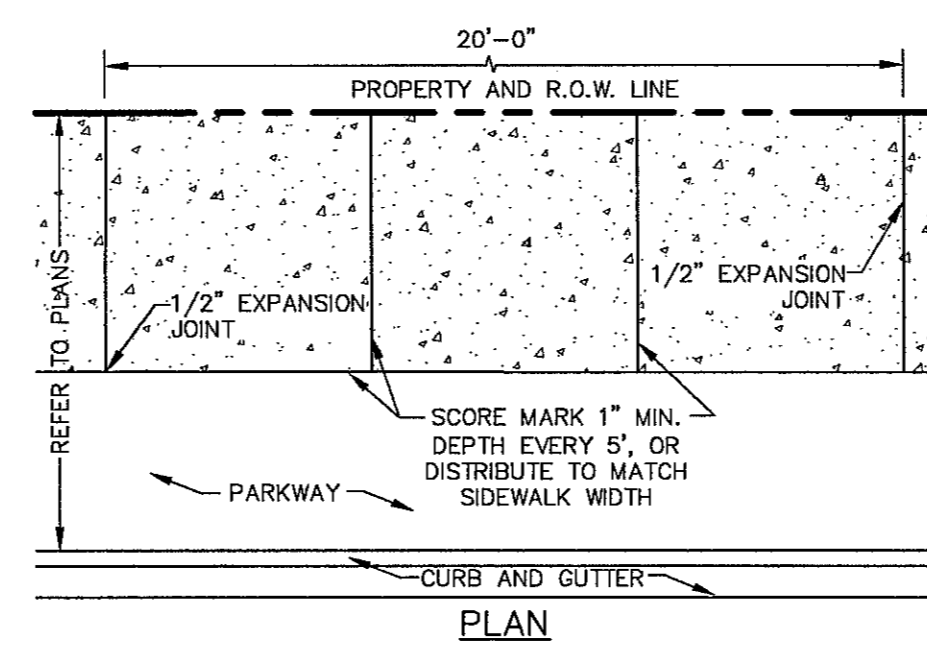


TYPICAL ASPHALT PAVEMENT SECTION
SCALE: N.T.S.

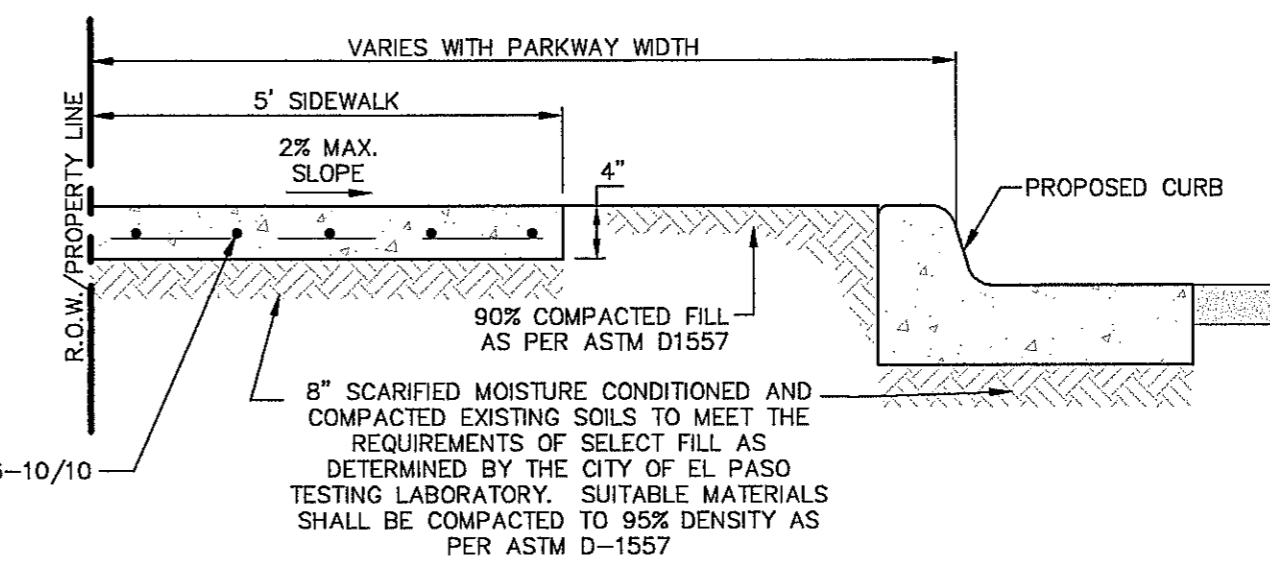


NOTE:
TERMINUS MUST BE CONSTRUCTED IN 4\"/>

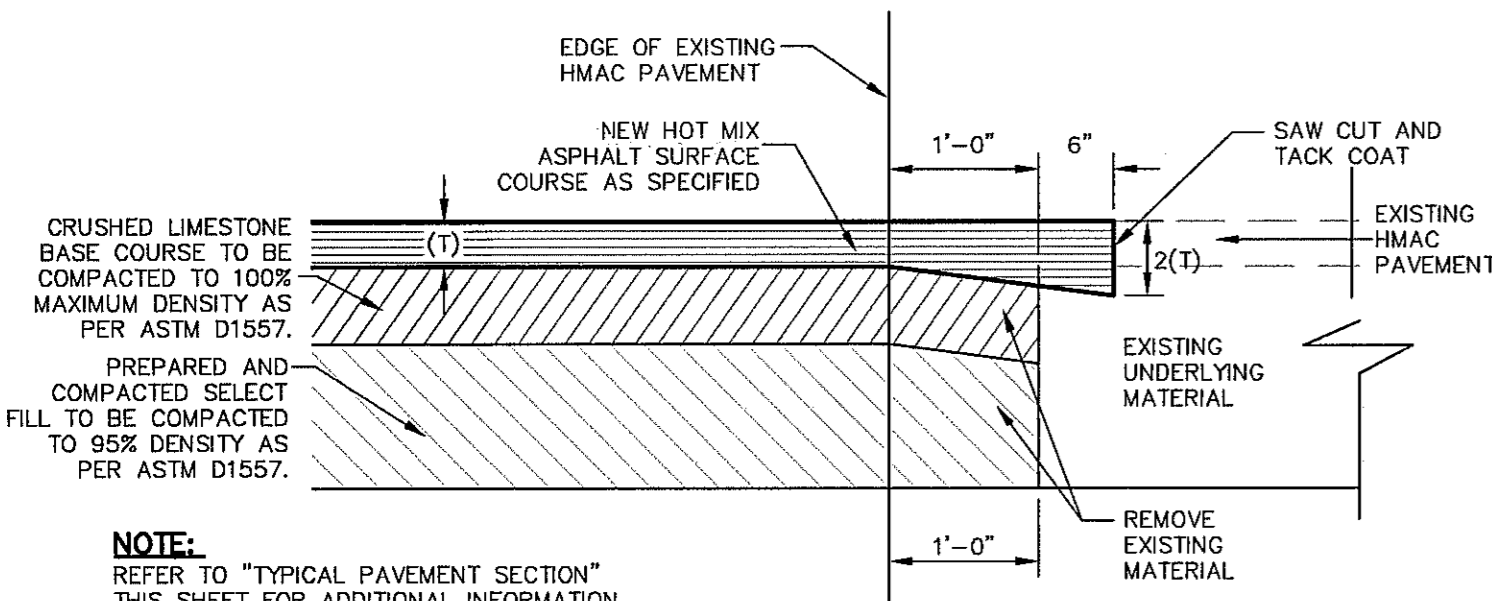
PAVEMENT TERMINUS DETAIL
SCALE: N.T.S.



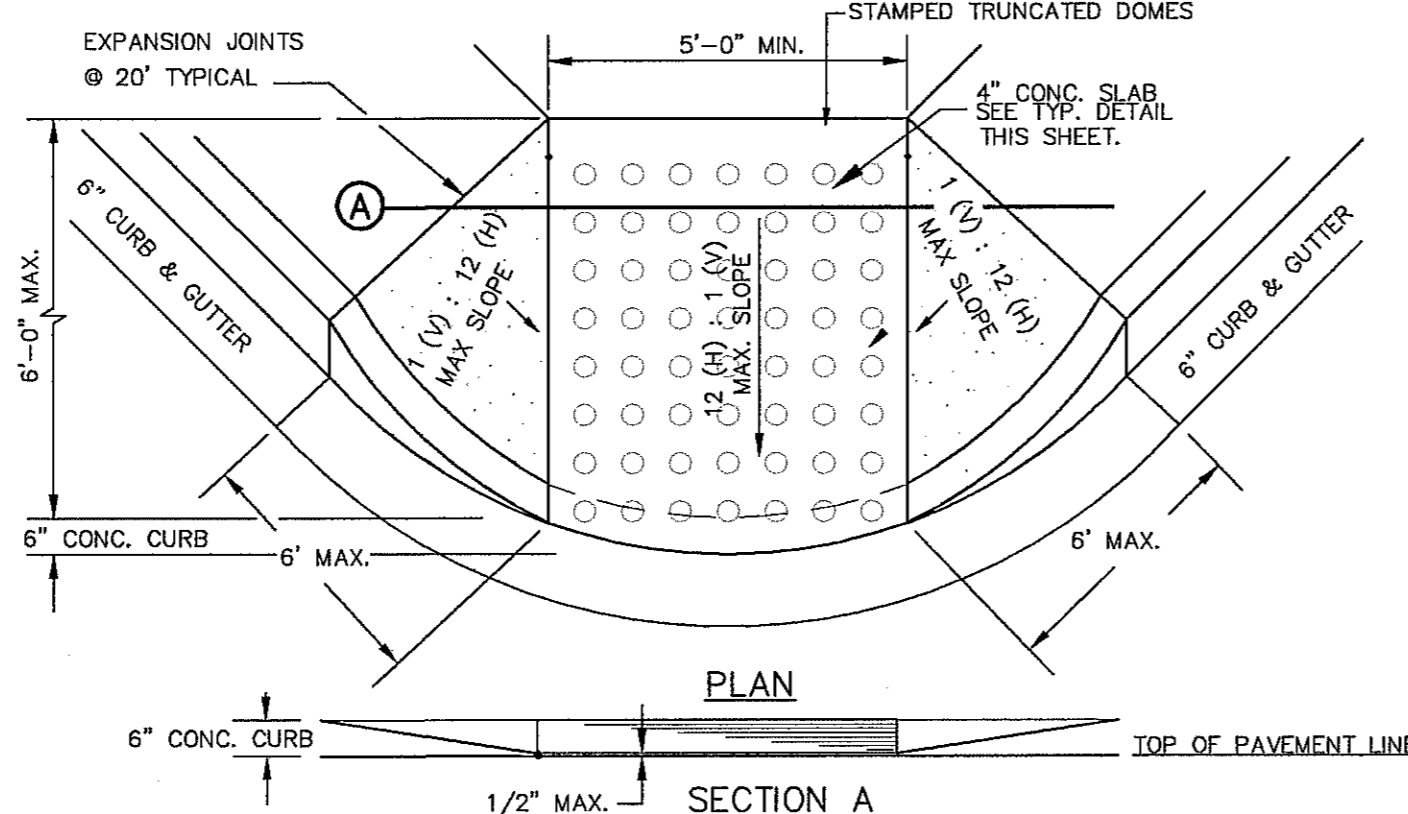
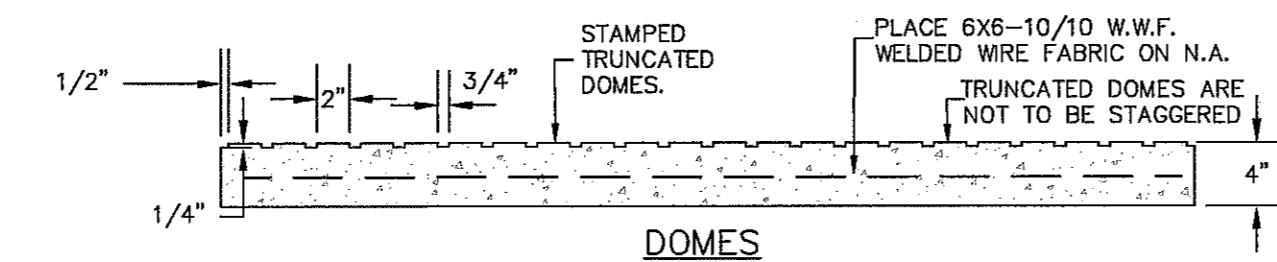
CURB & GUTTER WITH SIDEWALK SECTION
SCALE: N.T.S.



- SIDEWALK NOTES:**
1. CONCRETE SIDEWALK SHALL BE 3,000 P.S.I.
 2. DUMMY JOINTS REQUIRED AT 5' O.C.
 3. EXPANSION JOINTS SHALL BE AT 20' O.C. MAXIMUM, USE 1/2\"/>



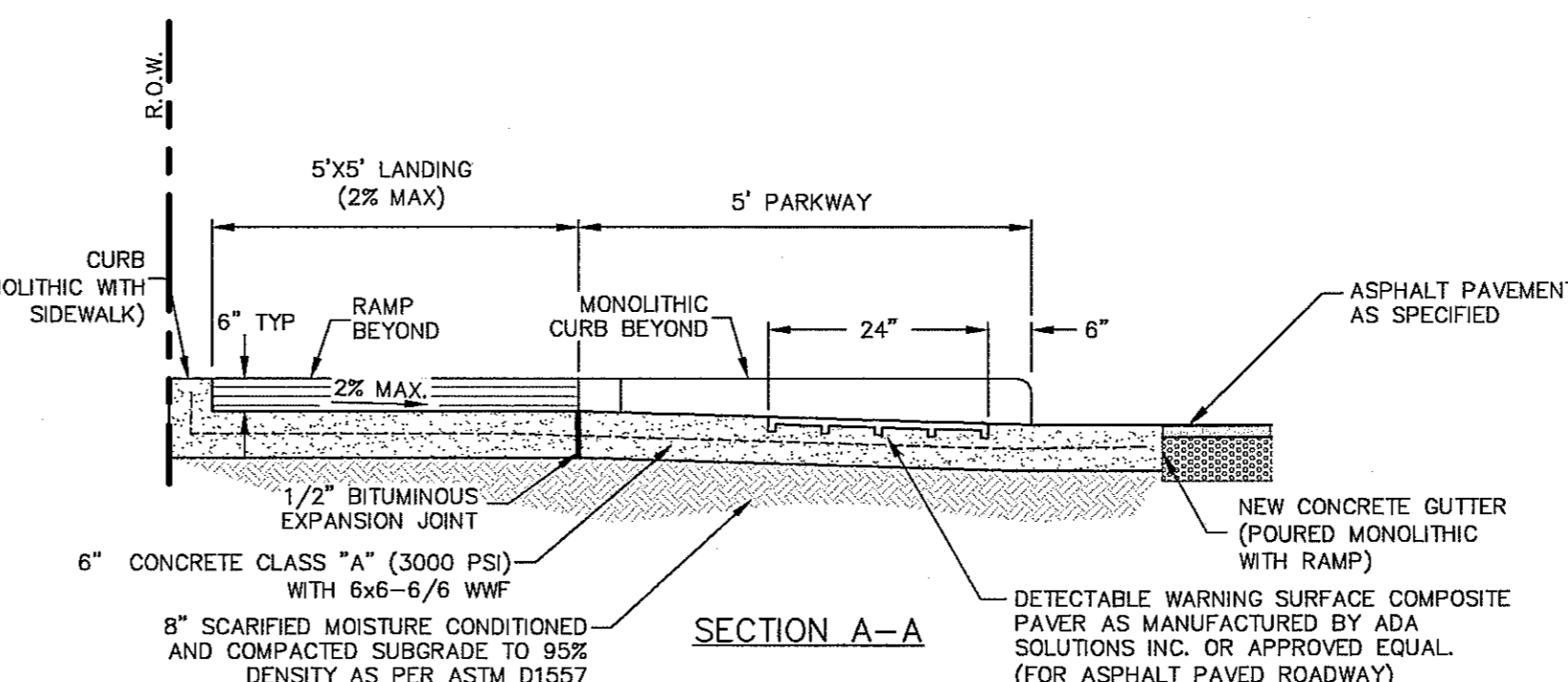
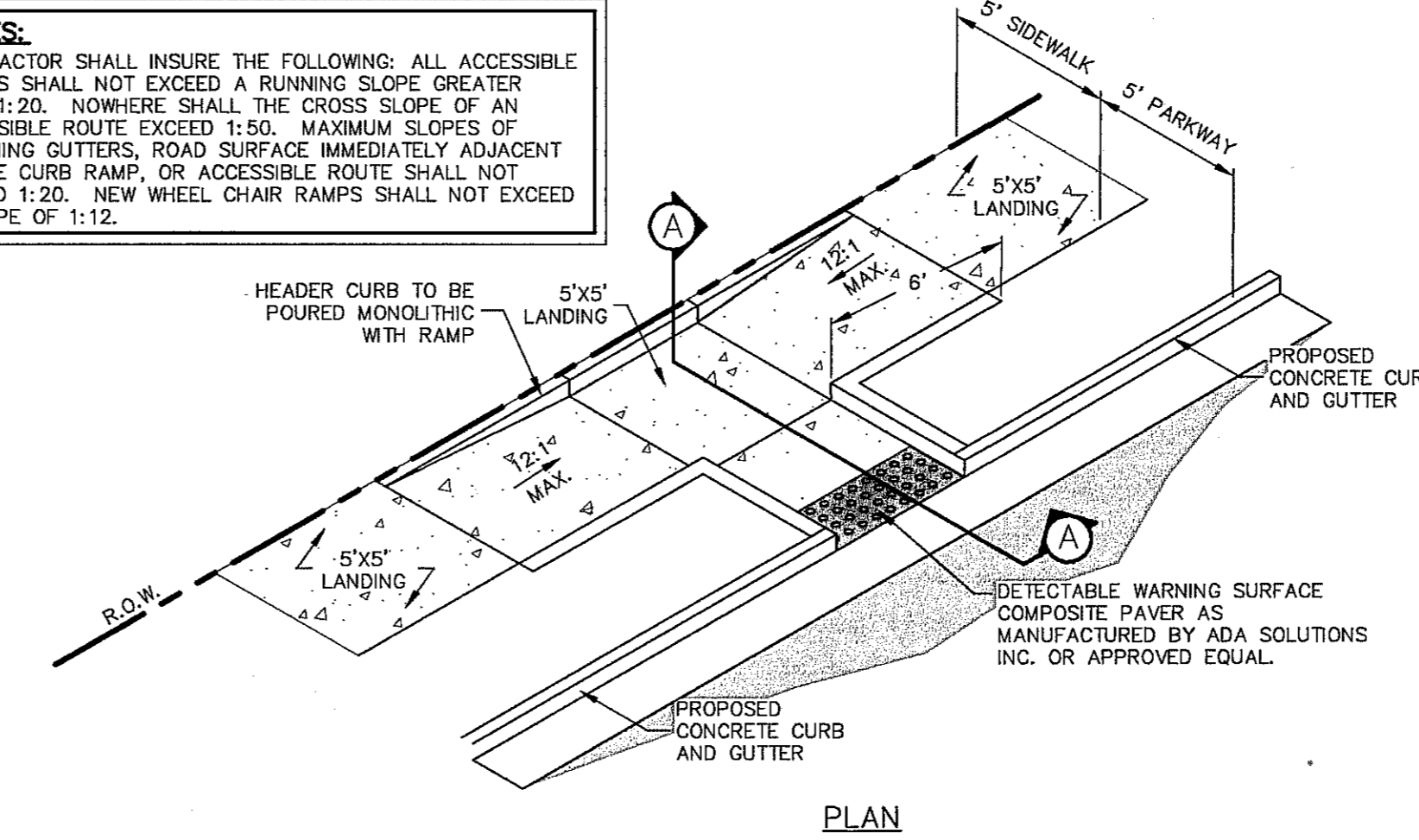
JUNCTURE OF NEW HMAC PAVEMENT AND EXISTING HMAC PAVEMENT
SCALE: N.T.S.



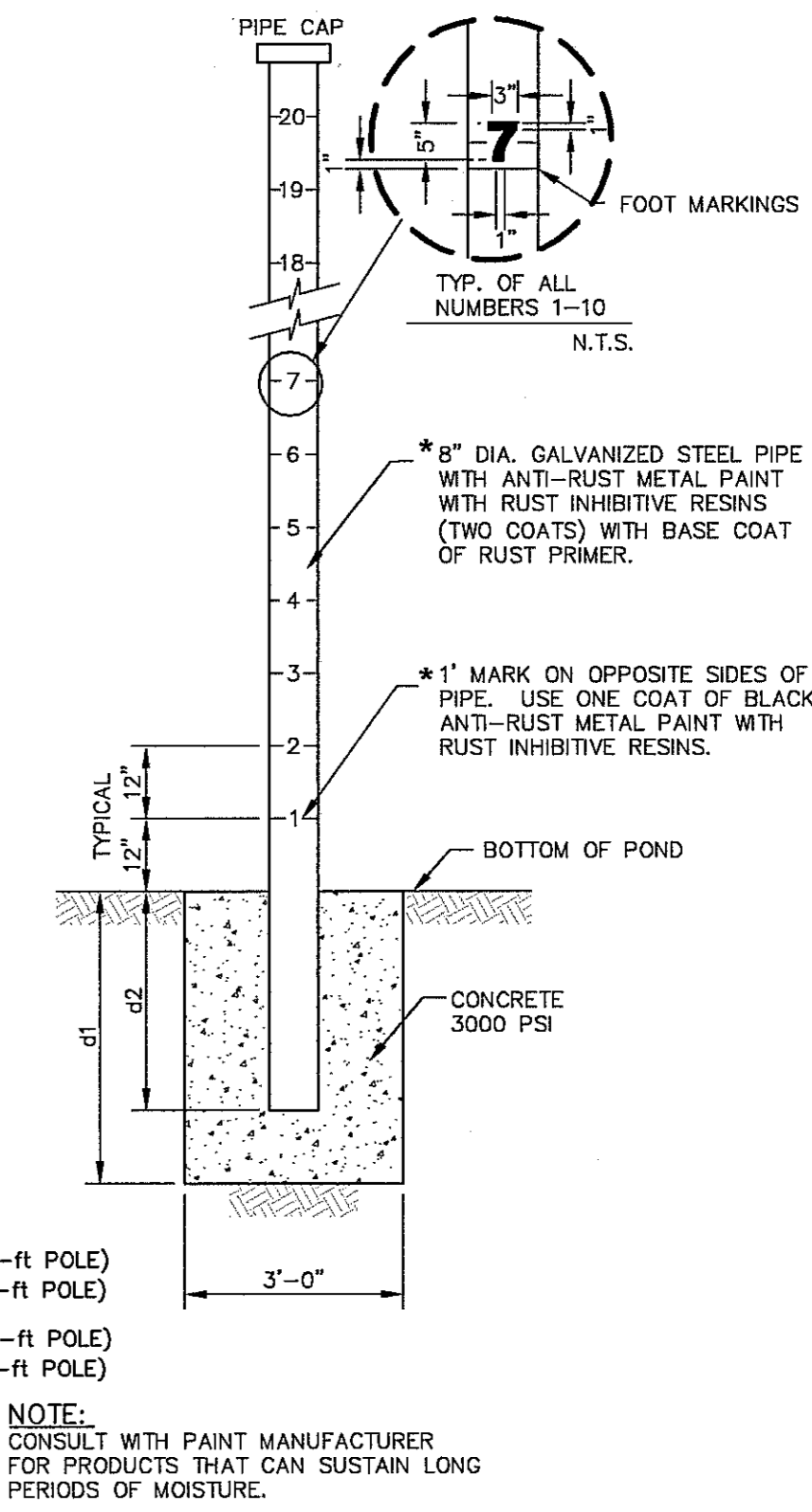
- SIDEWALK NOTES:**
1. CONCRETE SIDEWALK SHALL BE 3,000 P.S.I.
 2. DUMMY JOINTS REQUIRED AT 5' O.C.
 3. EXPANSION JOINTS SHALL BE AT 20' O.C. MAXIMUM, USE 1/2\"/>

TYPICAL WHEELCHAIR RAMP DETAIL (TYPE A)
SCALE: N.T.S.

- NOTES:**
- CONTRACTOR SHALL INSURE THE FOLLOWING: ALL ACCESSIBLE ROUTES SHALL NOT EXCEED A RUNNING SLOPE GREATER THAN 1:20. NOWHERE SHALL THE GROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20. NEW WHEEL CHAIR RAMPS SHALL NOT EXCEED A SLOPE OF 1:12.

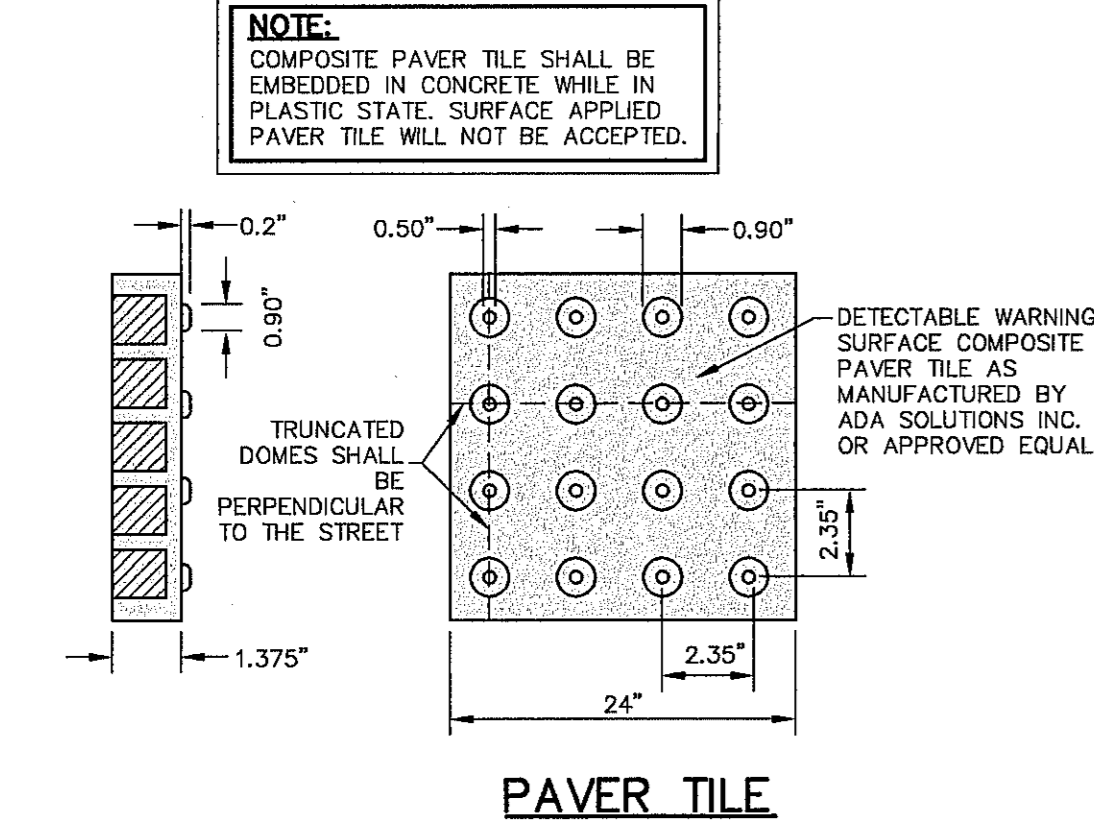


WHEELCHAIR RAMP DETAIL (TYPE B)
SCALE: N.T.S.

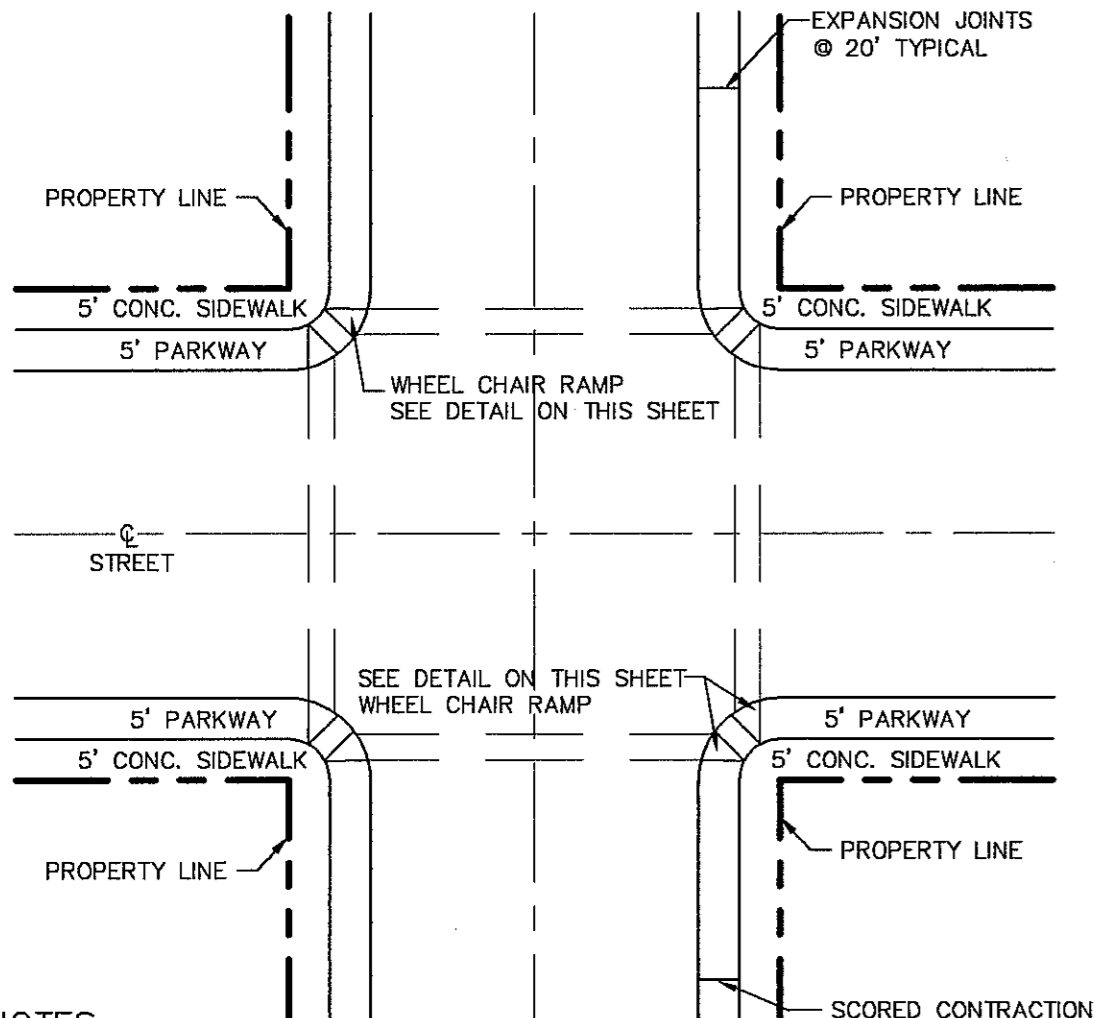


- NOTES:**
1. NUMBERS TO APPEAR ON 4 SIDES OF POLE
 2. WATER DEPTH POLES SHALL BE PAINTED WHITE WITH NUMBERS AND FOOT MARKINGS PAINTED BLACK.

DEPTH GAUGE
SCALE N.T.S.



PAVER TILE
SCALE: N.T.S.



- NOTES:**
1. RAMPS MAY BE PLACED AS SUGGESTED, HOWEVER EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC., MAY AFFECT PLACEMENT.
 2. THE CONCRETE SURFACE SHALL HAVE A ROUGH, NONSKID TYPE FINISH.
 3. CONSTRUCTION METHODS SHALL CONFORM WITH THE CITY OF EL PASO SPECIFICATIONS.
 4. ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF EL PASO STANDARDS.

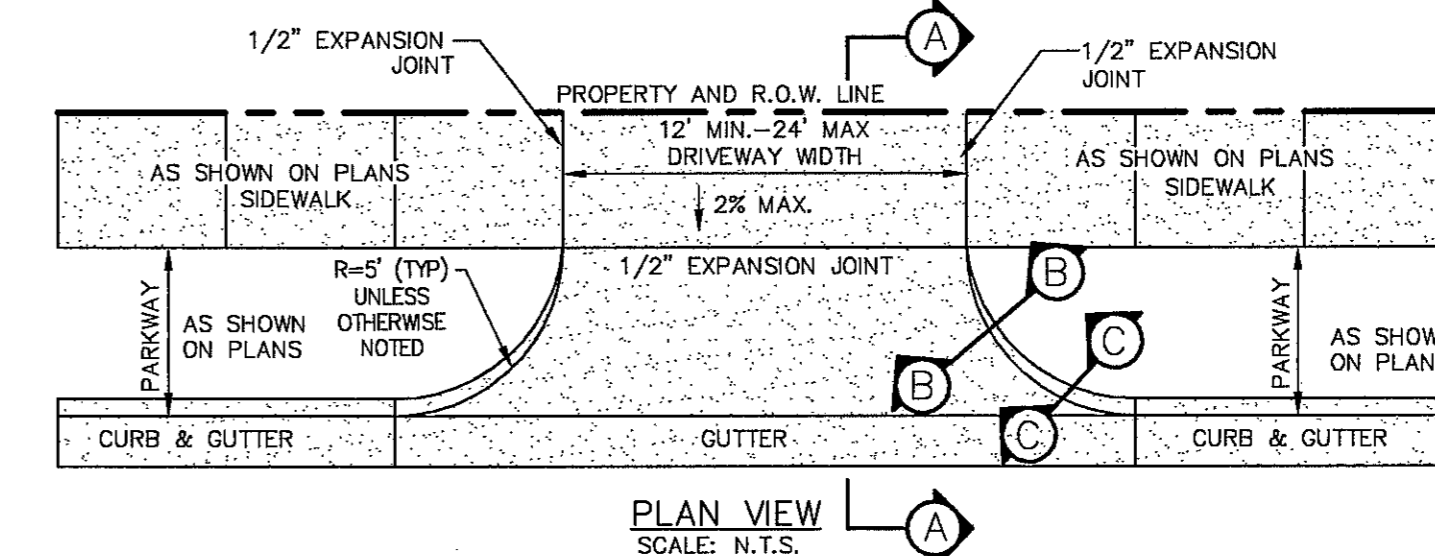
WHEELCHAIR RAMP STREET PLAN (TYPE A)
SCALE: NTS

- NOTES:**
1. RAMP SHALL HAVE CONTRASTING COLOR TO SIDEWALK. COLOR SHALL BE BRICK RED.
 2. ALL NEW RAMPS SHALL COMPLY WITH T.A.S. AND A.D.A. REQUIREMENTS. ANY SECTIONS NOT CONFORMING WILL BE REMOVED AT THE CONTRACTORS EXPENSE.
 3. CONTRACTOR SHALL USE COMPOSITE PAVER TILE THROUGHOUT THE DETECTABLE WARNING SURFACE SHOWN ON PLANS AND AS SPECIFIED IN THIS DETAIL.
 4. **DOMES SIZE AND SPACING.** TRUNCATED DOMES SHALL HAVE A DIAMETER OF NOMINAL 0.9 INCHES AT THE BOTTOM, A DIAMETER OF 0.4 INCH AT THE TOP, A HEIGHT OF NOMINAL 0.2 INCHES, AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.
 5. **DOMES ALIGNMENT.** DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION.
 6. **CONTRAST.** THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "RED BRICK" COLOR, UNLESS OTHERWISE DIRECTED BY THE OWNER. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE. CONTRAST SHALL BE PROVIDED BY PLACING AND MIXING TINT IN THE PLASTIC CONCRETE USED FOR THE DETECTABLE WARNING SURFACE. NO PAINTING OF SURFACE SHALL BE PERMITTED.

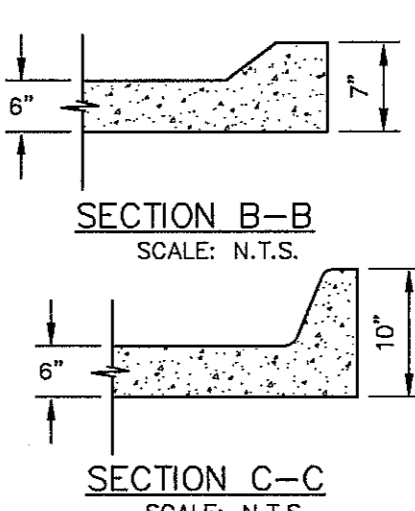
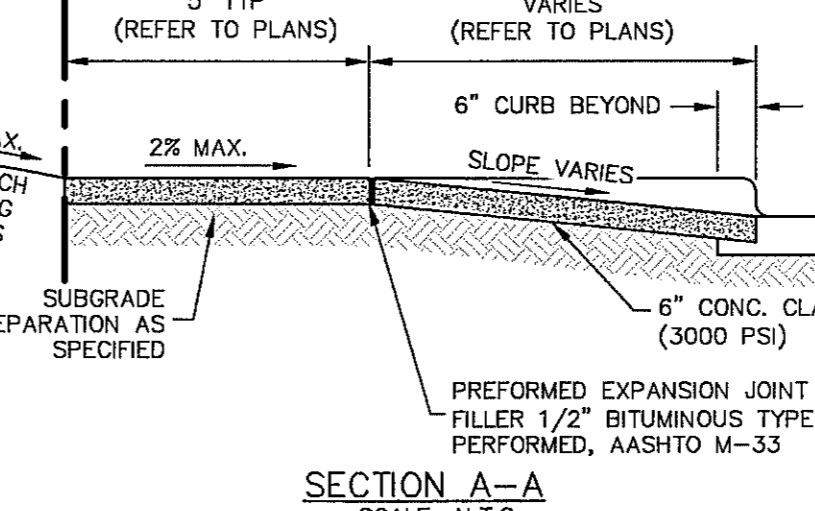
DRIVEWAY WIDTH	MIN.	MAX.
RESIDENTIAL	12'	24'

RESIDENTIAL:
6" CONC. WITH 6x6-10/10

- NOTE:**
1. WHENEVER DRIVEWAYS AND/OR SIDEWALK ADJUTS CONCRETE STRUCTURES SUCH AS CURBS, OTHER DRIVES OR BUILDINGS, EXPANSION JOINT FILLER SHALL BE PLACED IN ACCORDANCE TO STANDARD SPECIFICATIONS.



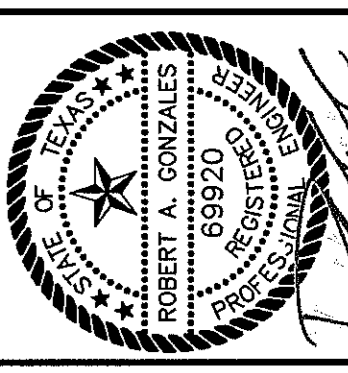
TYPICAL CONCRETE DRIVEWAY
SCALE: N.T.S.



DATE	REVISION	BY

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CORNERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

QUANTUM
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SCALE:	HORIZONTAL:	VERTICAL:
	N/A	N/A

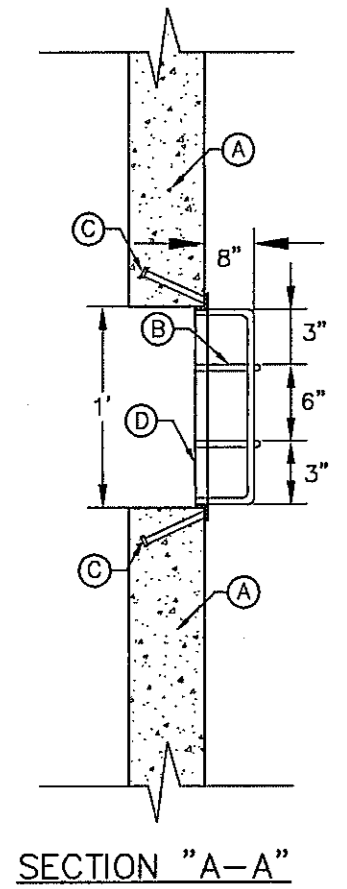
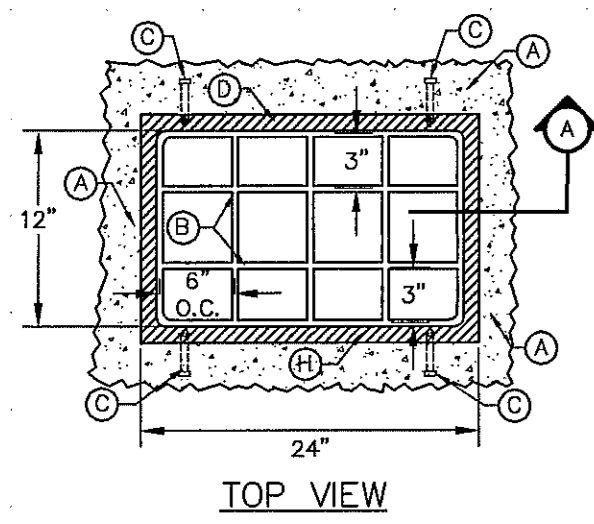
DATE: OCTOBER-2016
DESIGN BY: M.A.S.
CHECK BY: C.O.D.
APPROV. BY: R.A.G.
JOB NO.: 15151

PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
STANDARD
DETAILS
(2 OF 2)

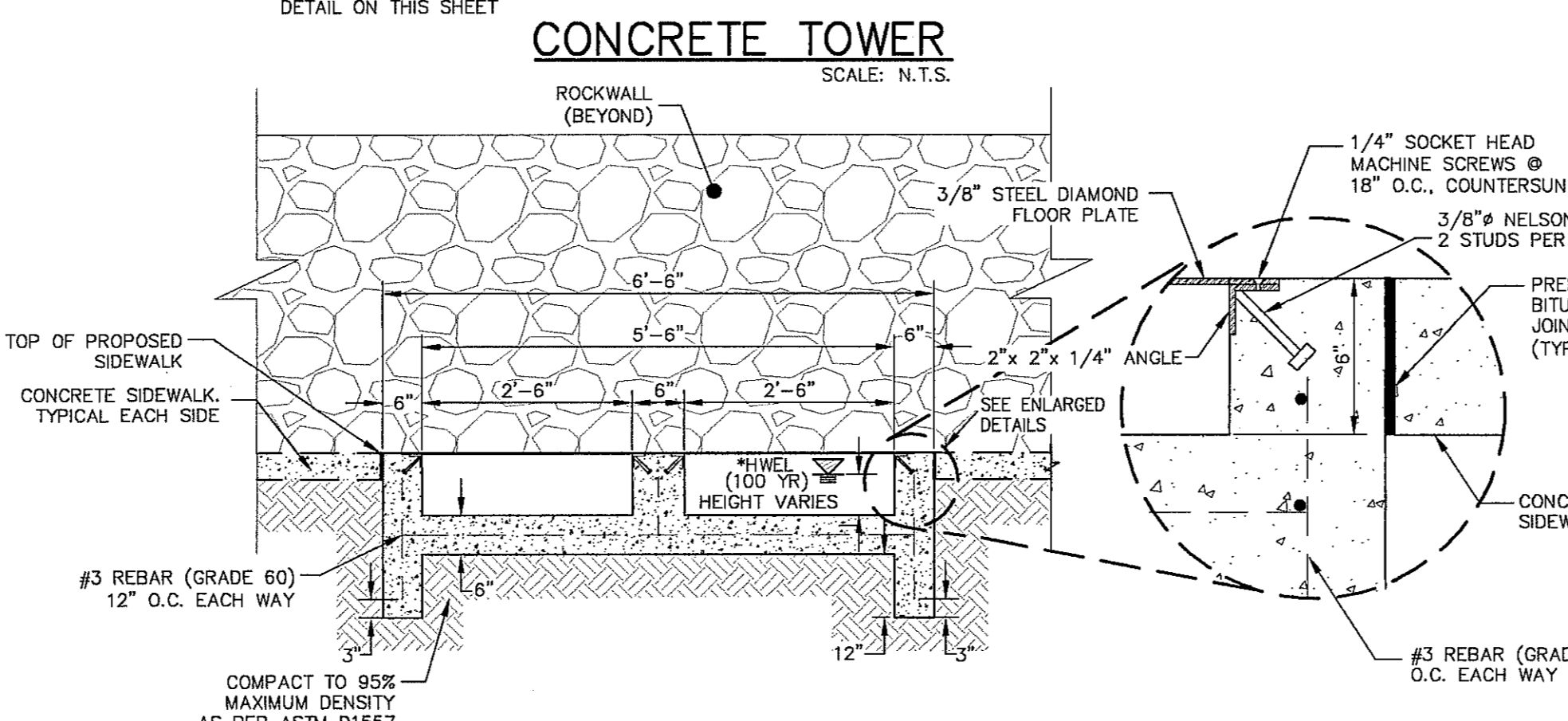
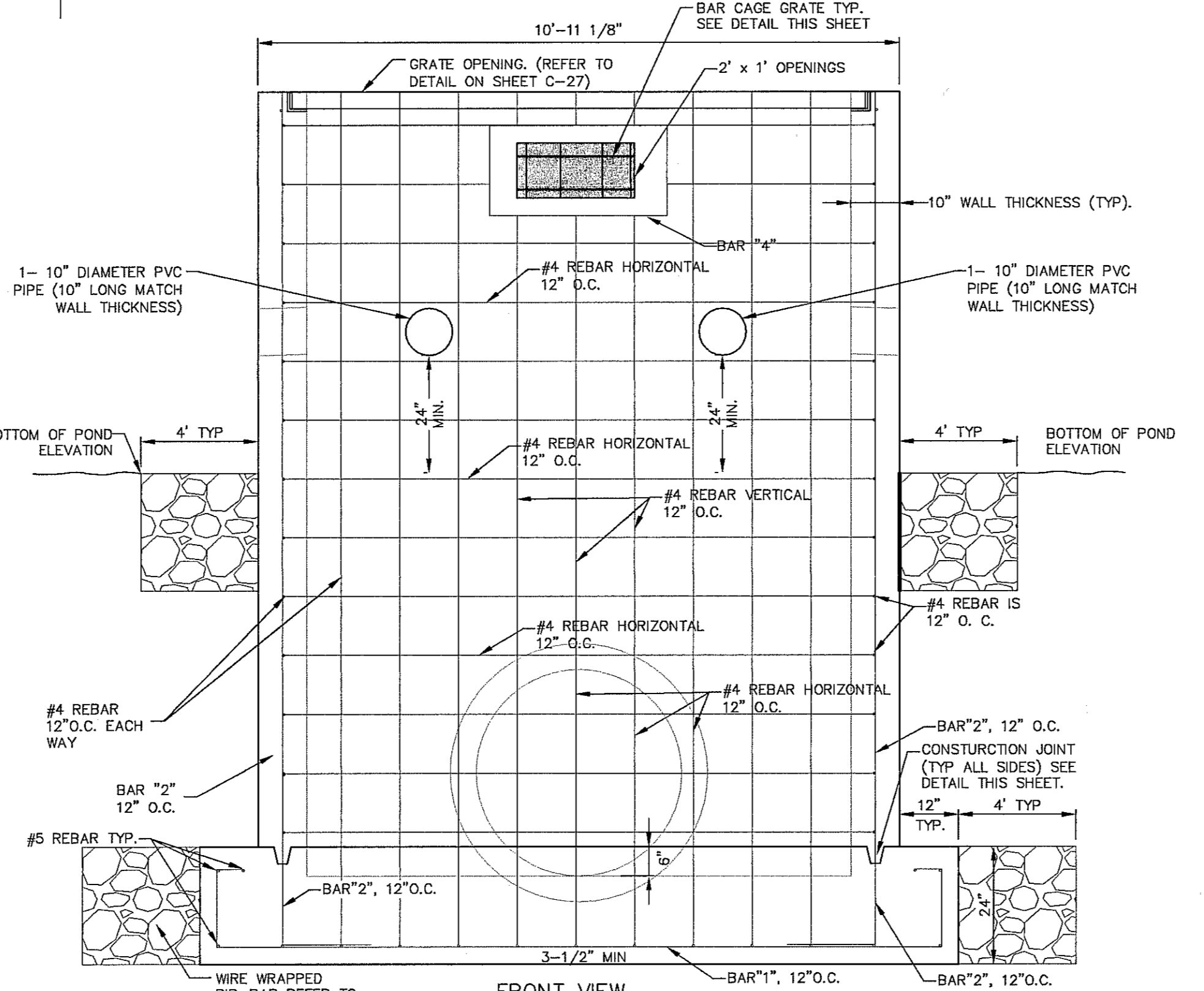
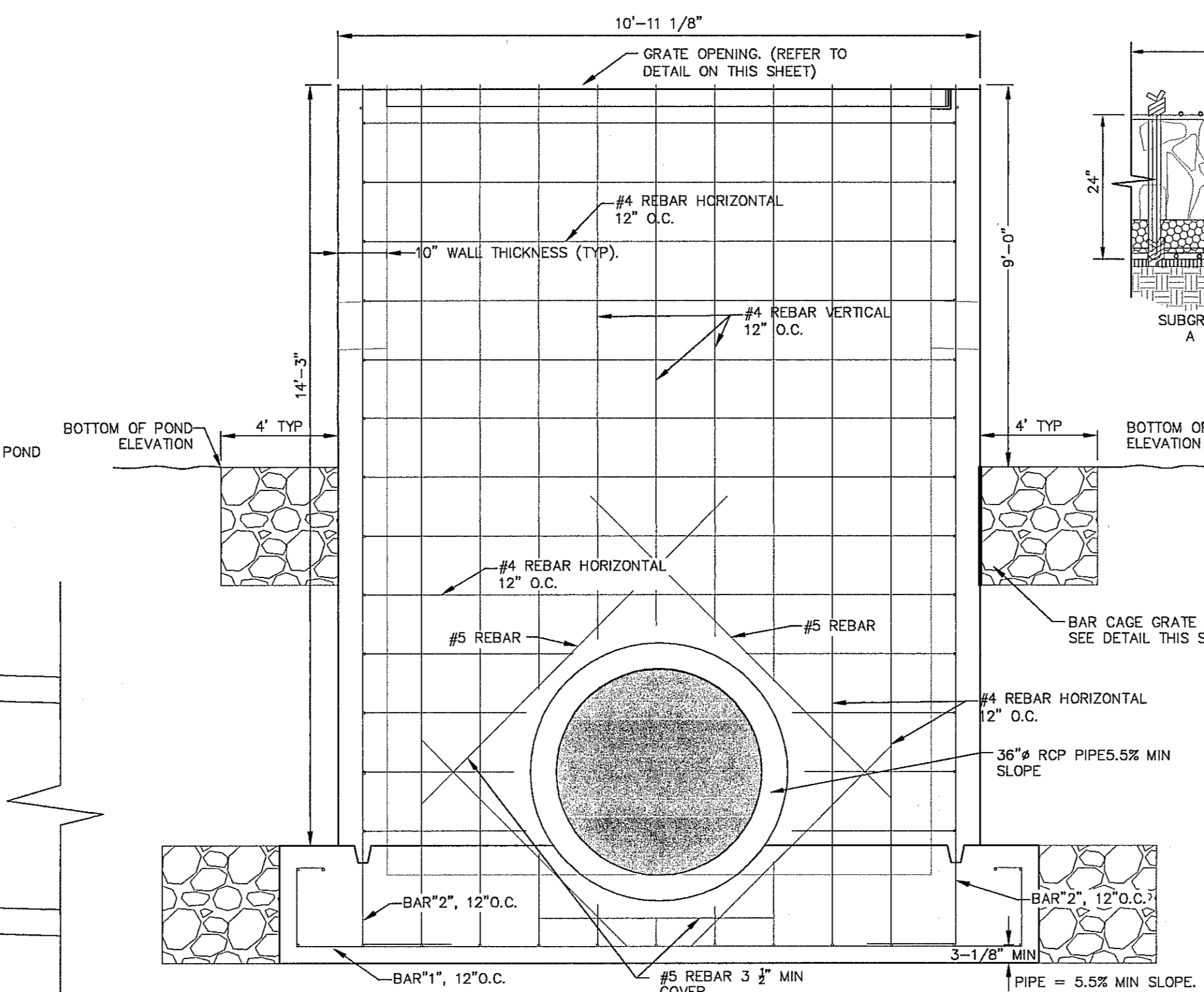
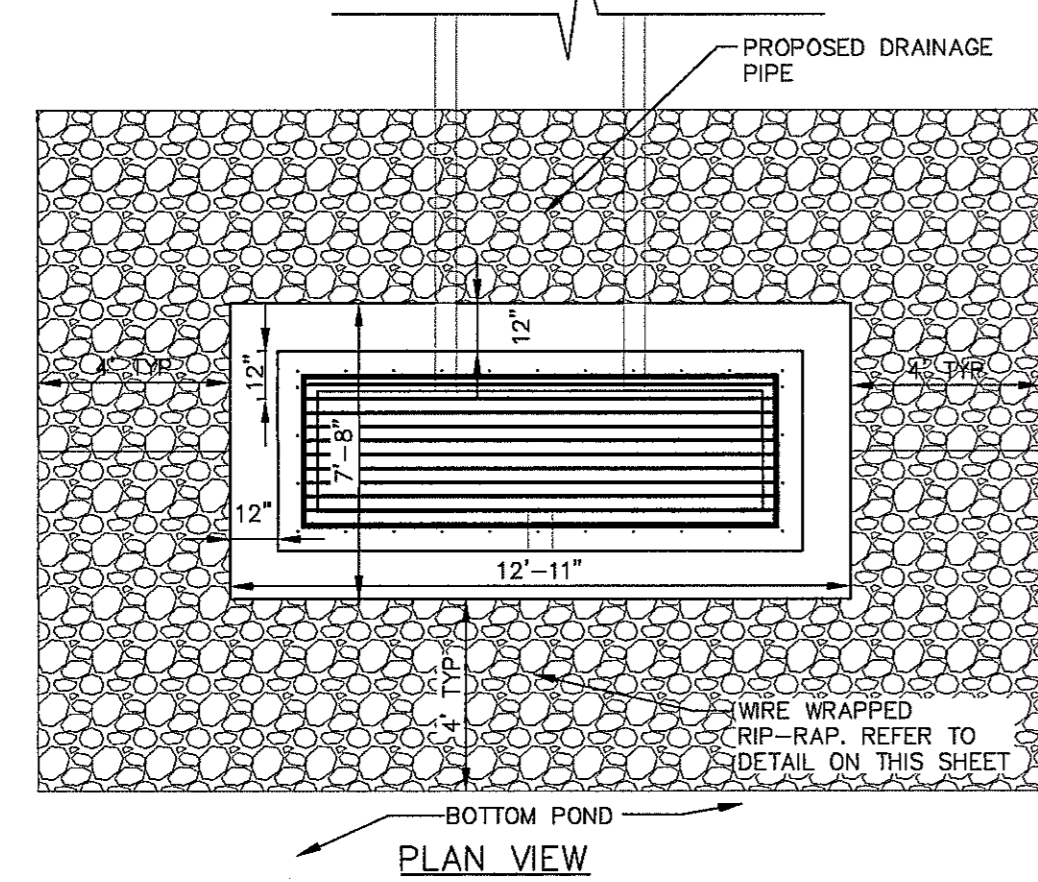
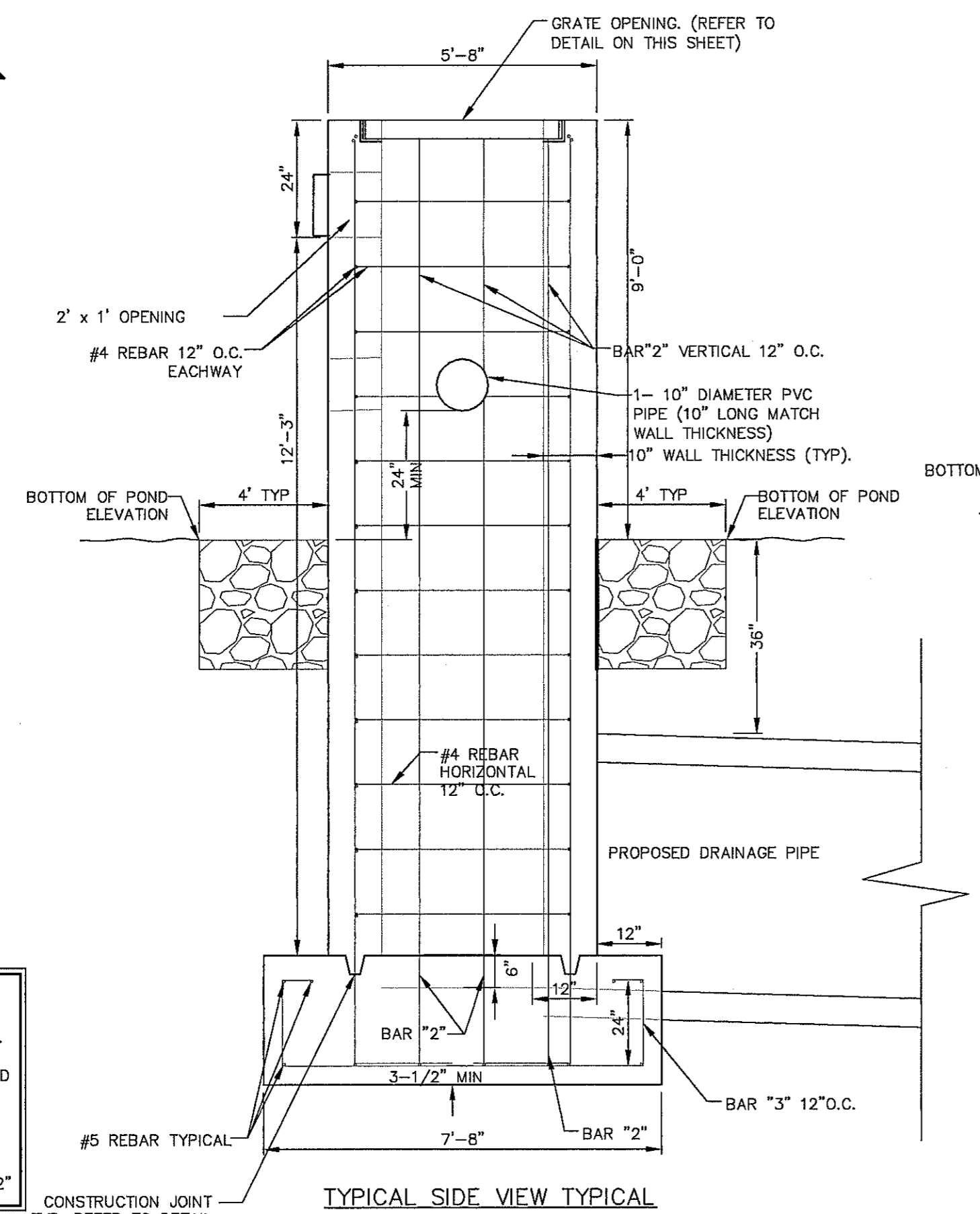
SHEET NO.

C-25
25 OF 49 SHEETS

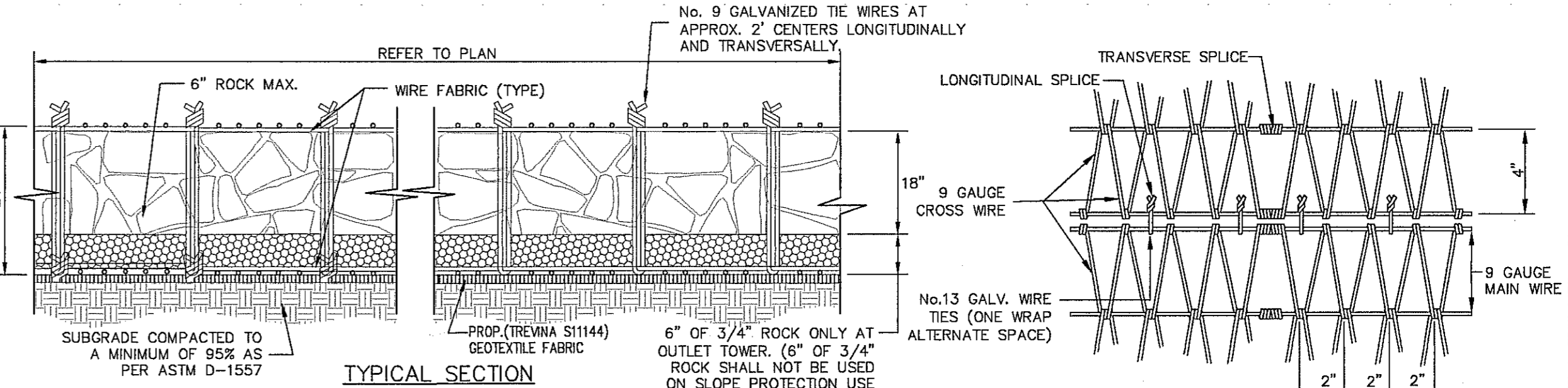


- KEY NOTES:**
- Ⓐ 3000 PSI REINFORCED CONCRETE OUTLET WALL. REFER TO DETAIL ON SHEET C-25.
 - Ⓑ GRATE COVER 3/4" DIAMETER GALVANIZED STEEL ROD. FILLET WELD TO FRAME AND AT ALL ROD CONNECTIONS.
 - Ⓒ 4 - 5/8" DIAMETER ANCHOR BOLTS
 - Ⓓ NE ANGLE FRAME $\angle 3 \frac{1}{2} \times 3 \frac{1}{2} \times 1 \frac{1}{2}$ "

BAR CAGE GRATE DETAIL
SCALE: N.T.S.

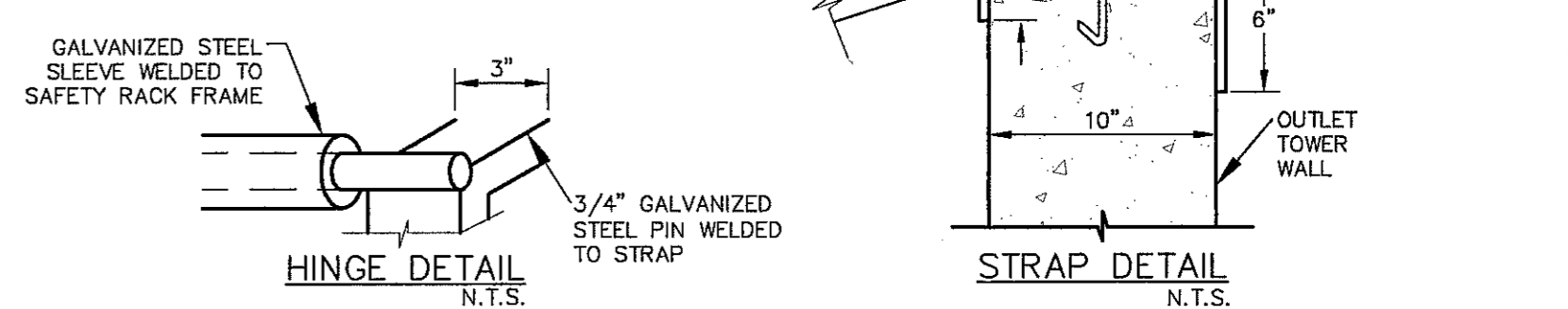


NEW EMERGENCY OVERFLOW 5.5' WIDE DIAMOND PLATE COVERED FLUME DETAIL
SCALE: N.T.S.

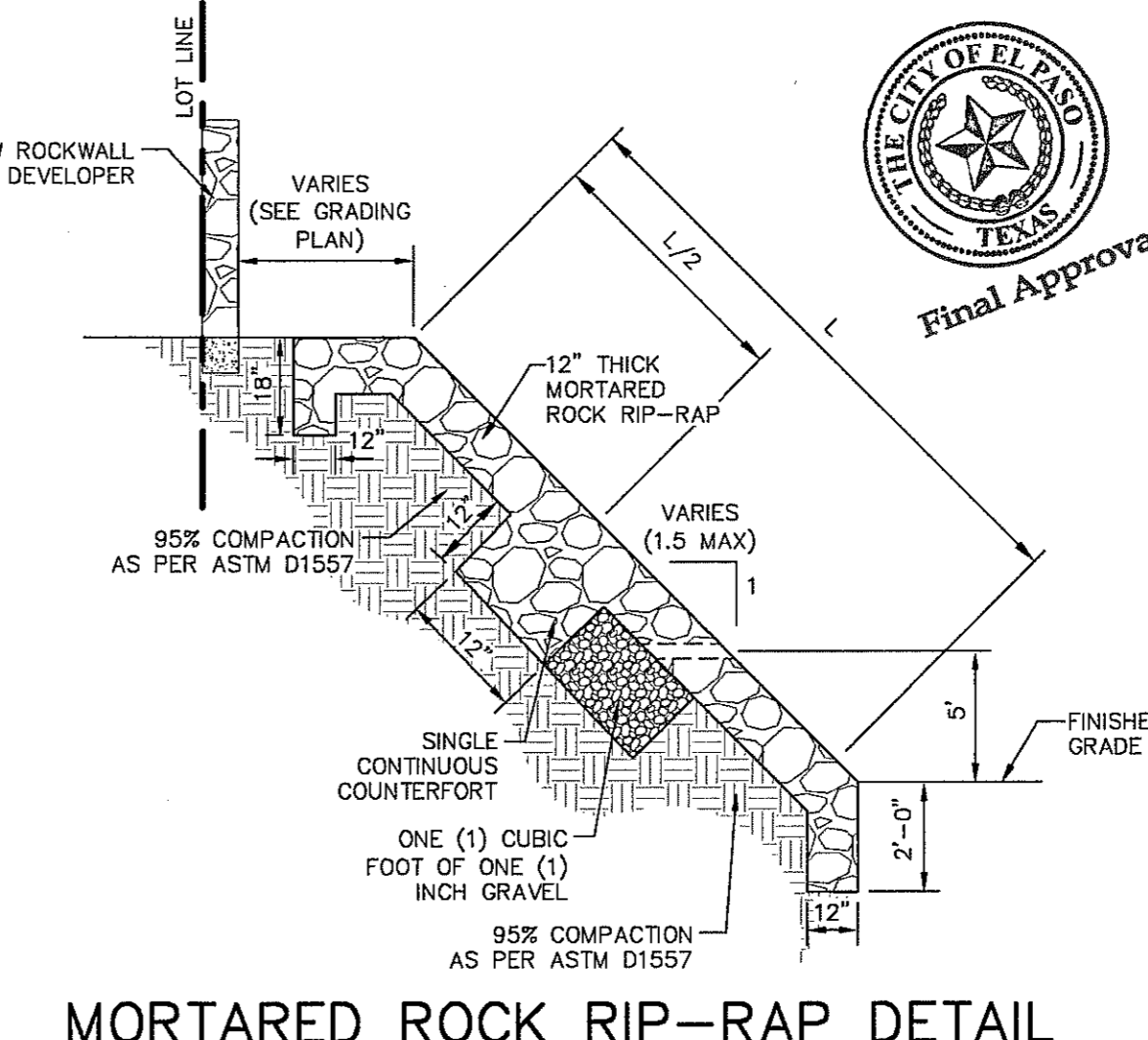
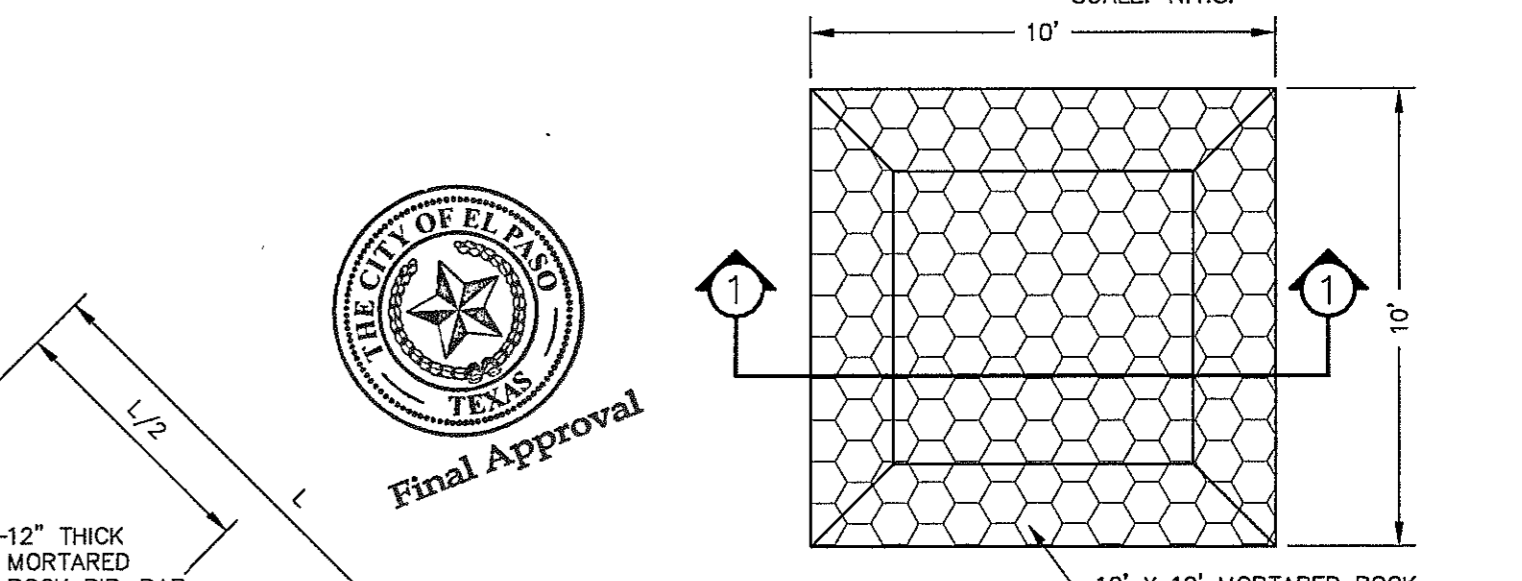


WIRE WRAPPED RIP-RAP DETAIL
SCALE: N.T.S.

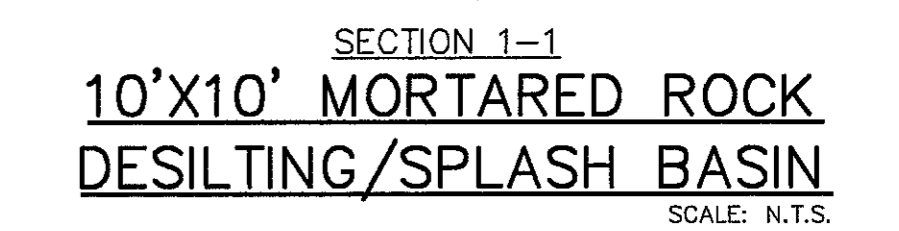
- GRATE OPENING NOTES:**
1. SAFETY RACK FRAME DIMENSIONS SHALL MATCH HEADWALL STRUCTURE IN THE FIELD.
 2. SAFETY RACK SHALL BE GALVANIZED.



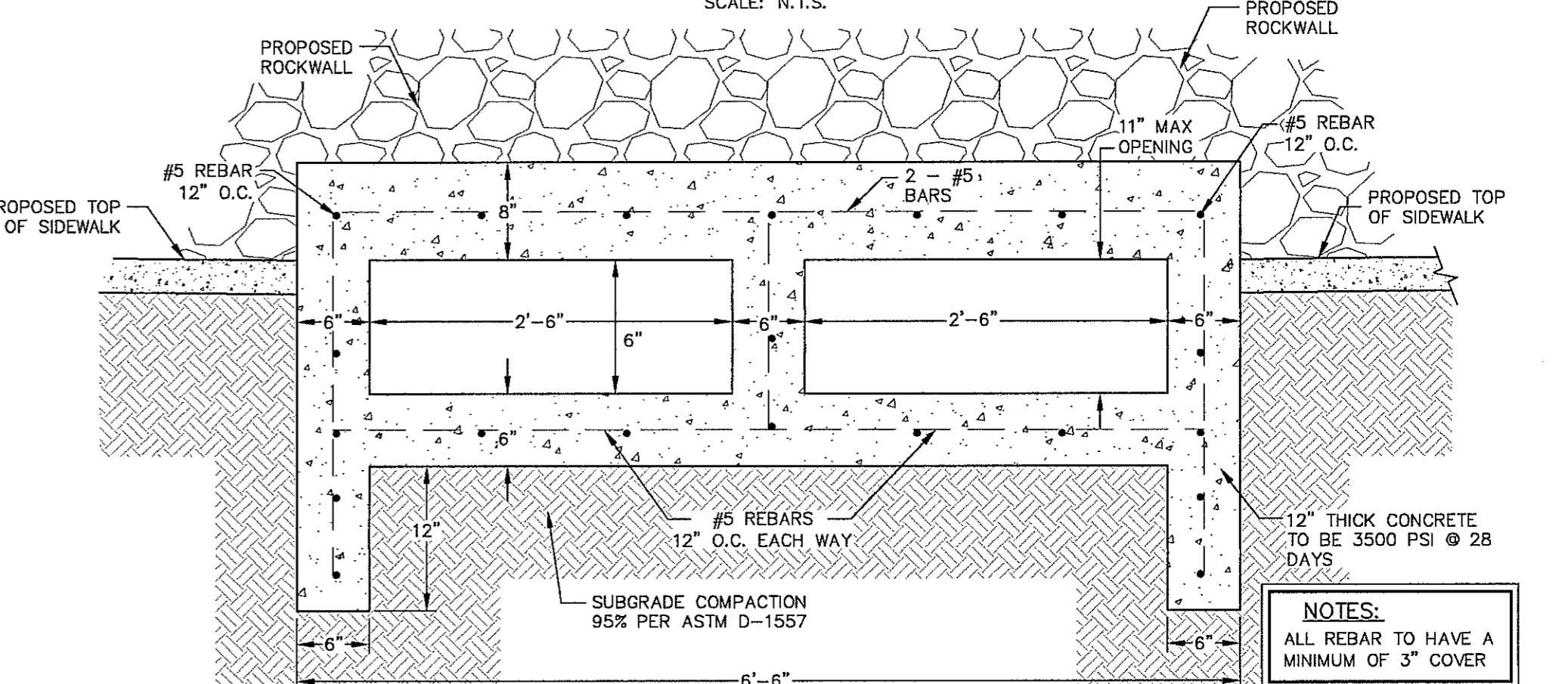
OUTLET TOWER GRATE OPENING DETAIL
SCALE: N.T.S.



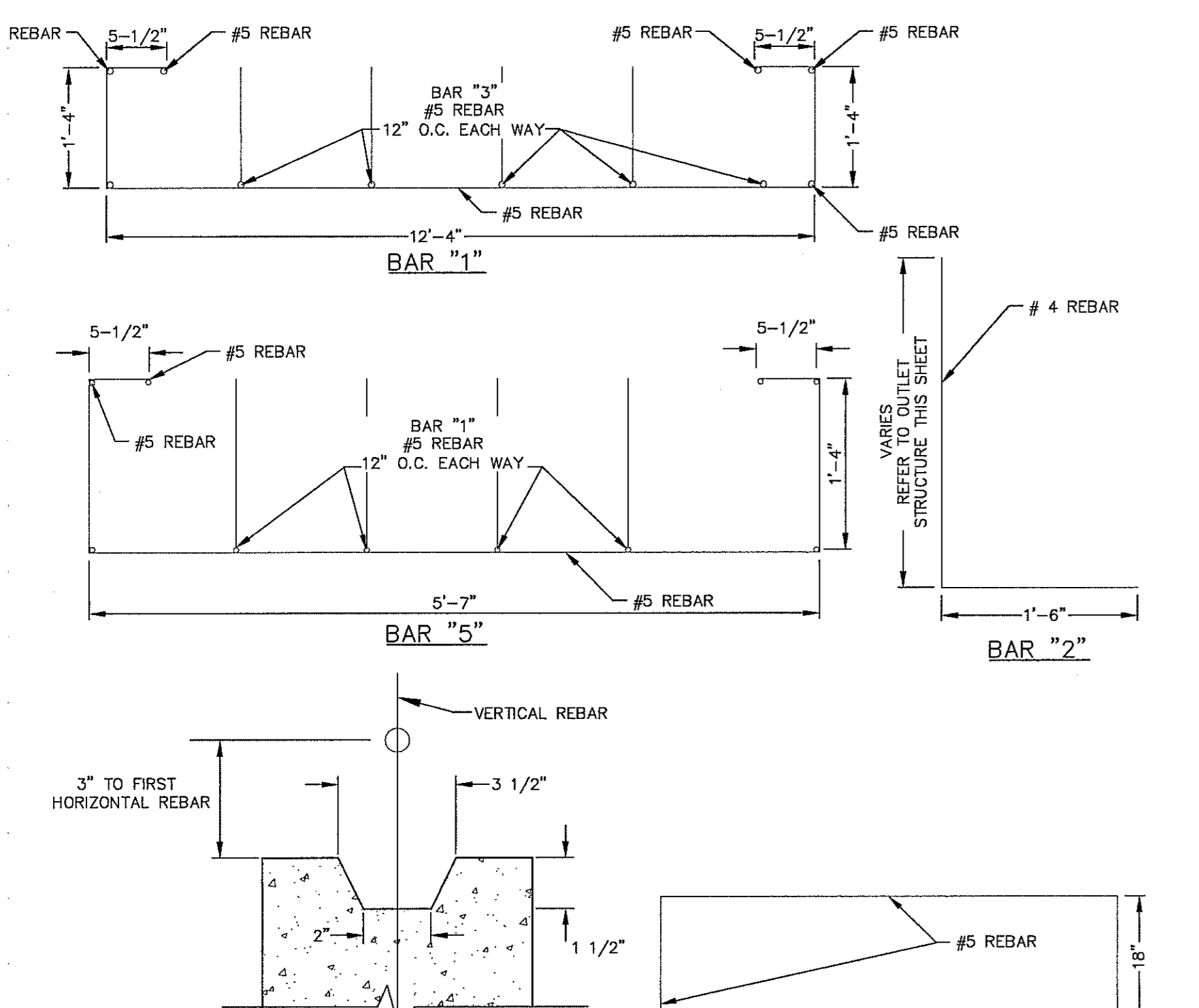
MORTARED ROCK RIP-RAP DETAIL
SCALE: N.T.S.



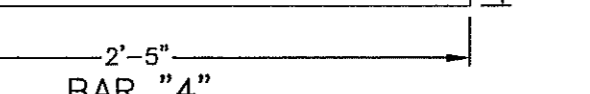
10'X10' MORTARED ROCK DESILTING/SPLASH BASIN
SCALE: N.T.S.



NEW ROCKWALL OPENING DETAIL
SCALE: N.T.S.



CONSTRUCTION JOINT
SCALE: N.T.S.



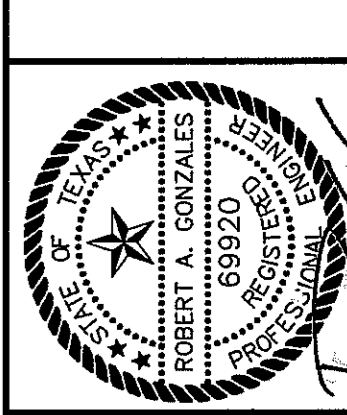
CONSTRUCTION JOINT
SCALE: N.T.S.

DATE	REVISION	BY

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4382.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

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SCALE:	HORIZONTAL:	VERTICAL:
	N/A	N/A
	CONTOUR INTERVAL:	
	DATE:	OCTOBER-2016
	DESIGN BY:	M.A.G.
	DRAWN BY:	CADD
	CHECKED BY:	R.A.G.
	APPROVED BY:	
	JOB NO.:	1515

FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

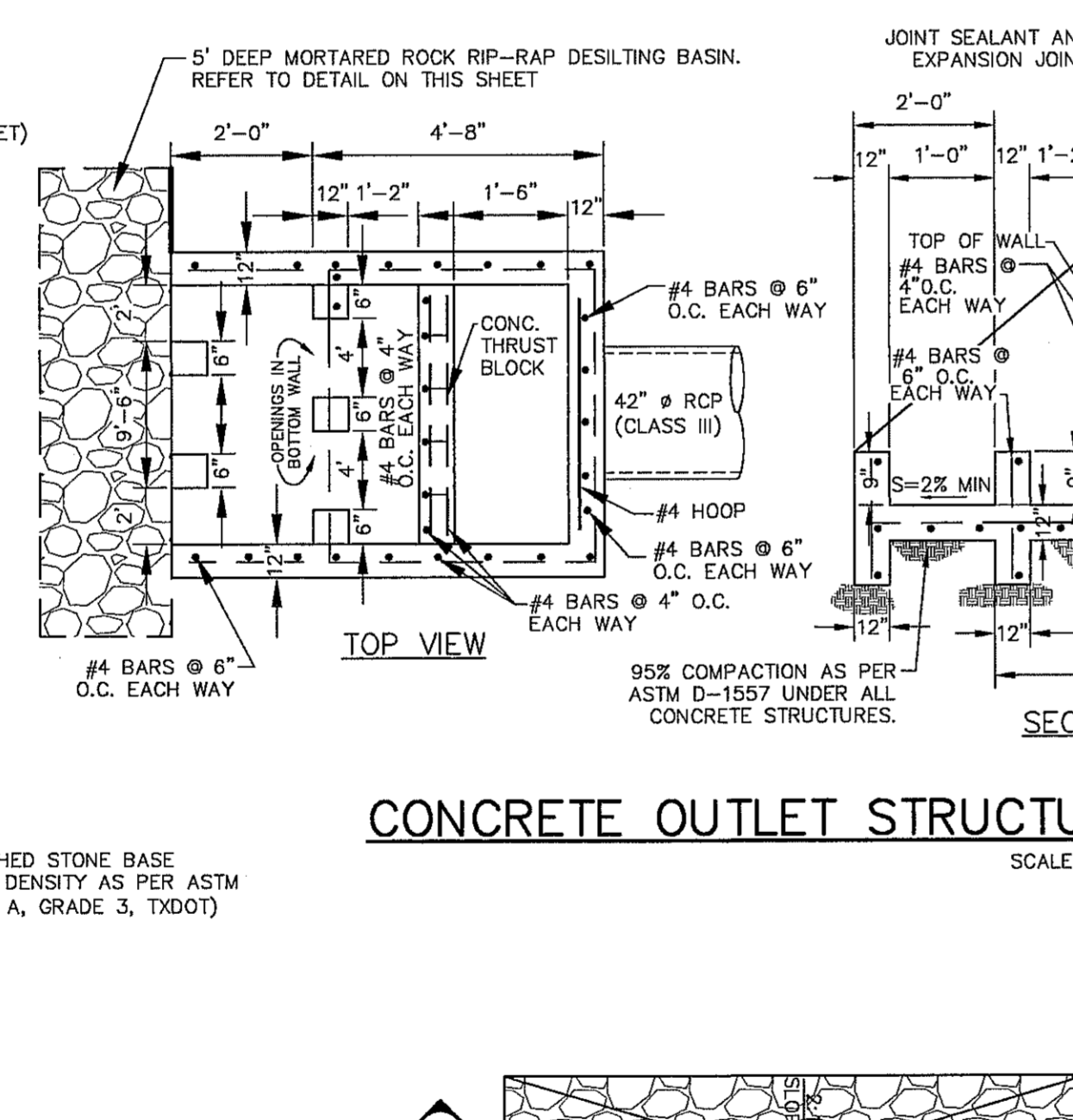
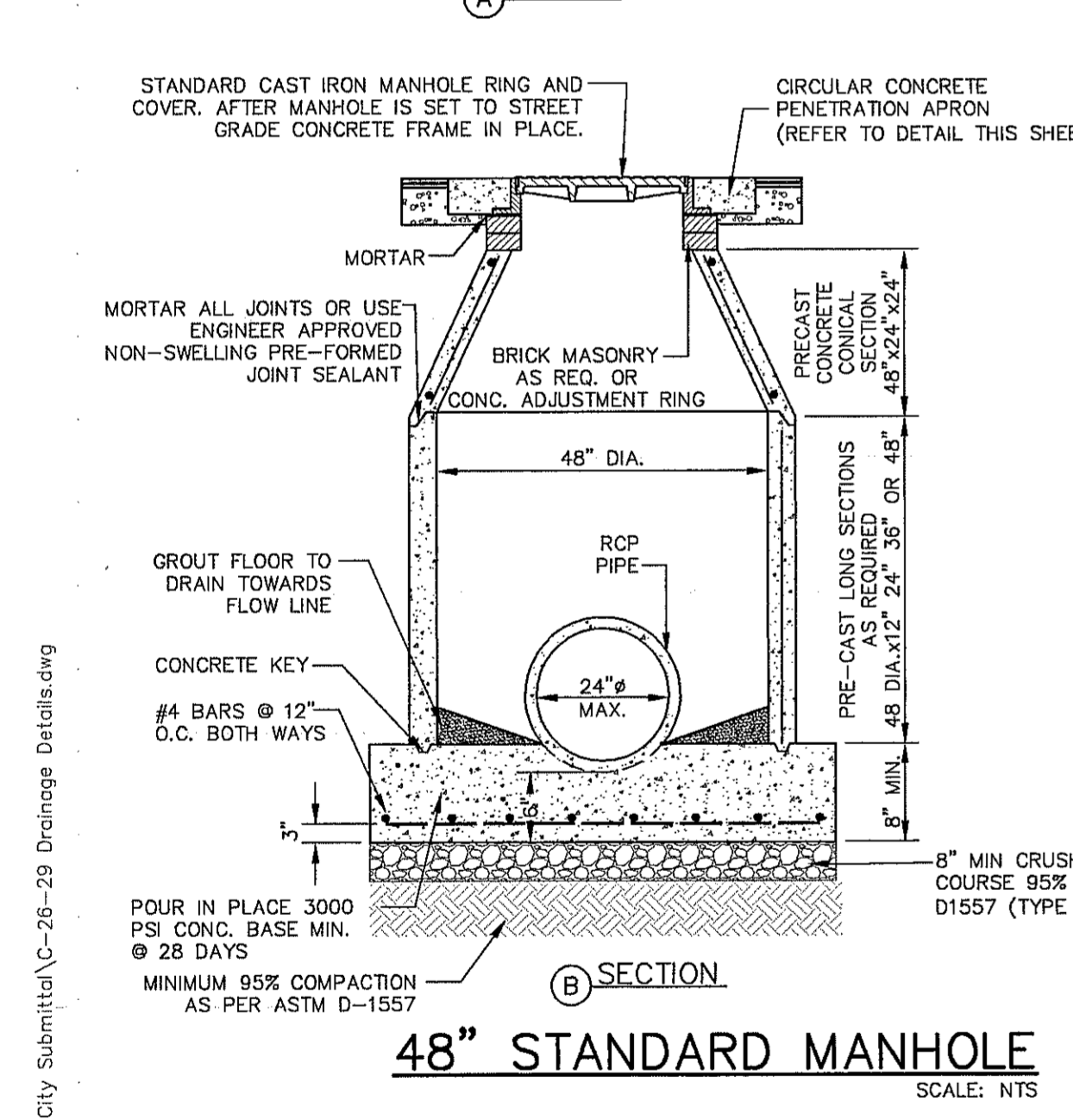
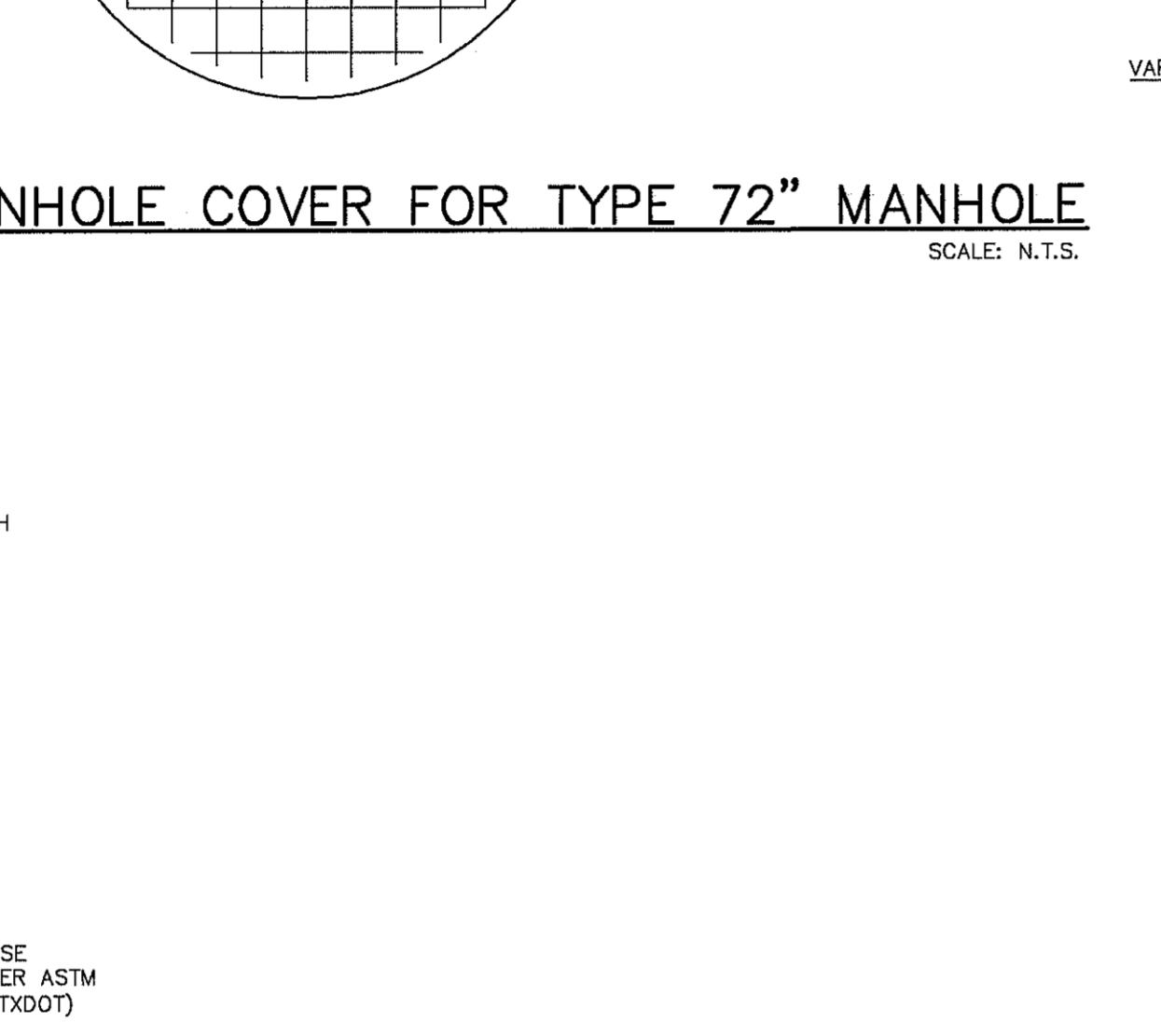
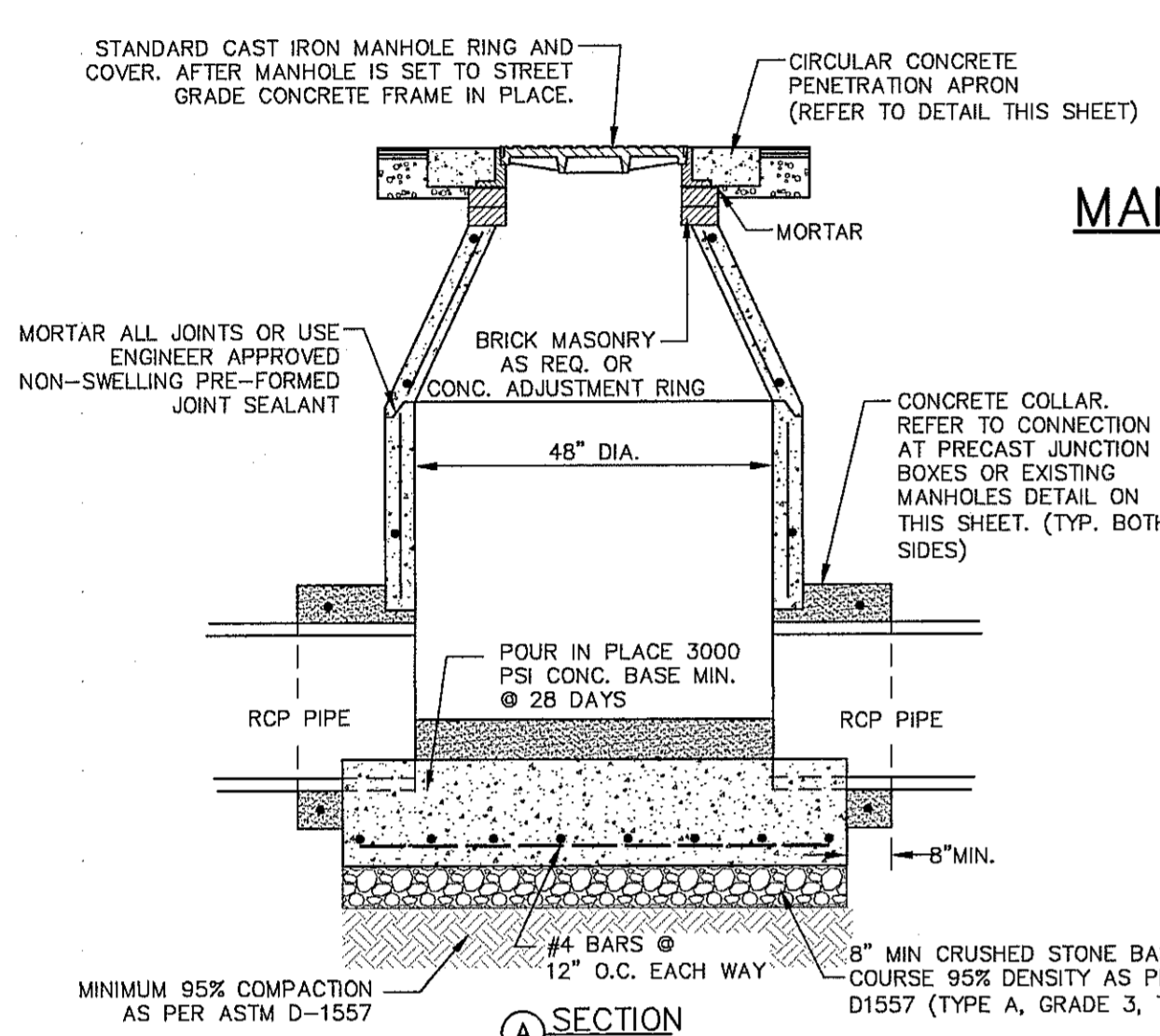
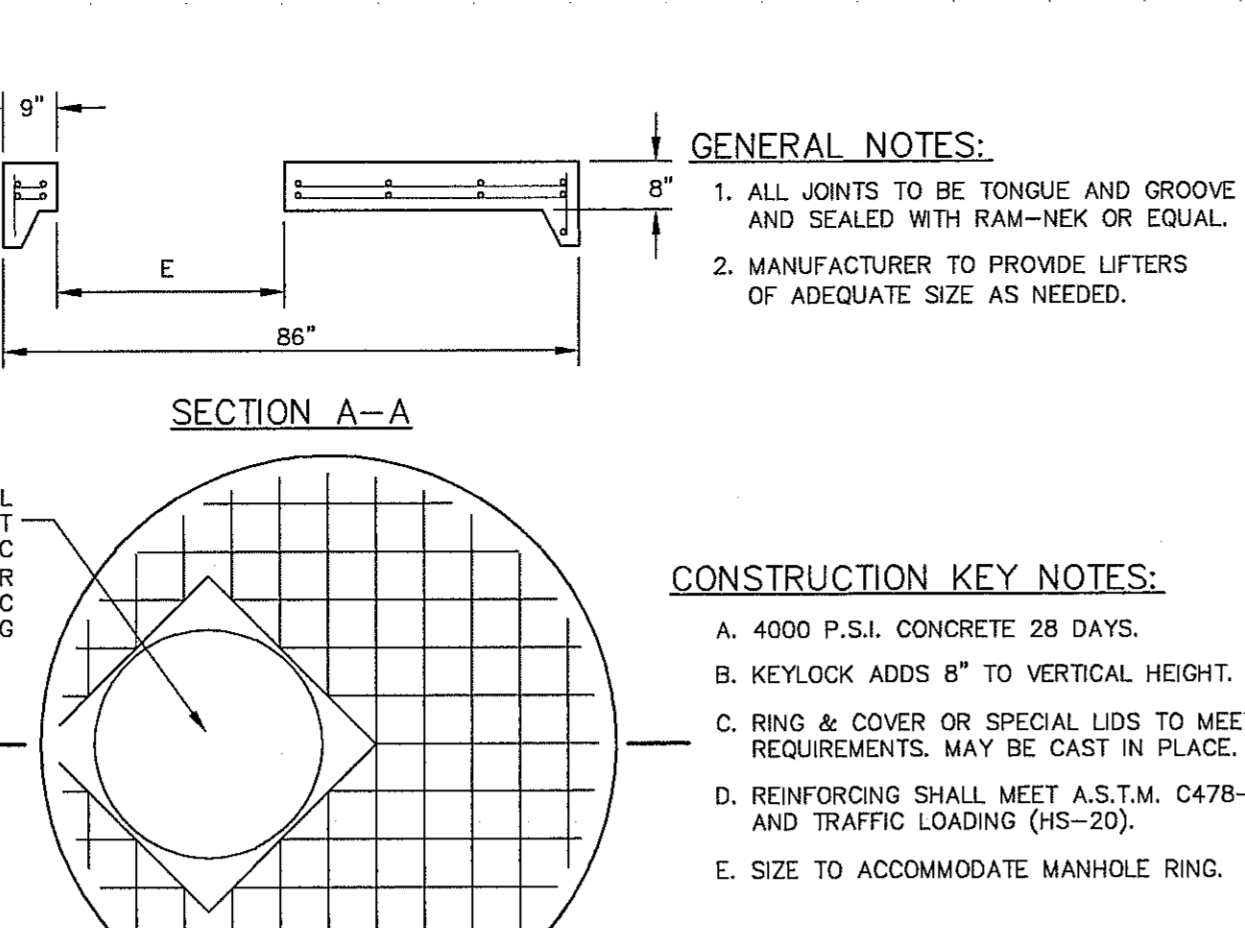
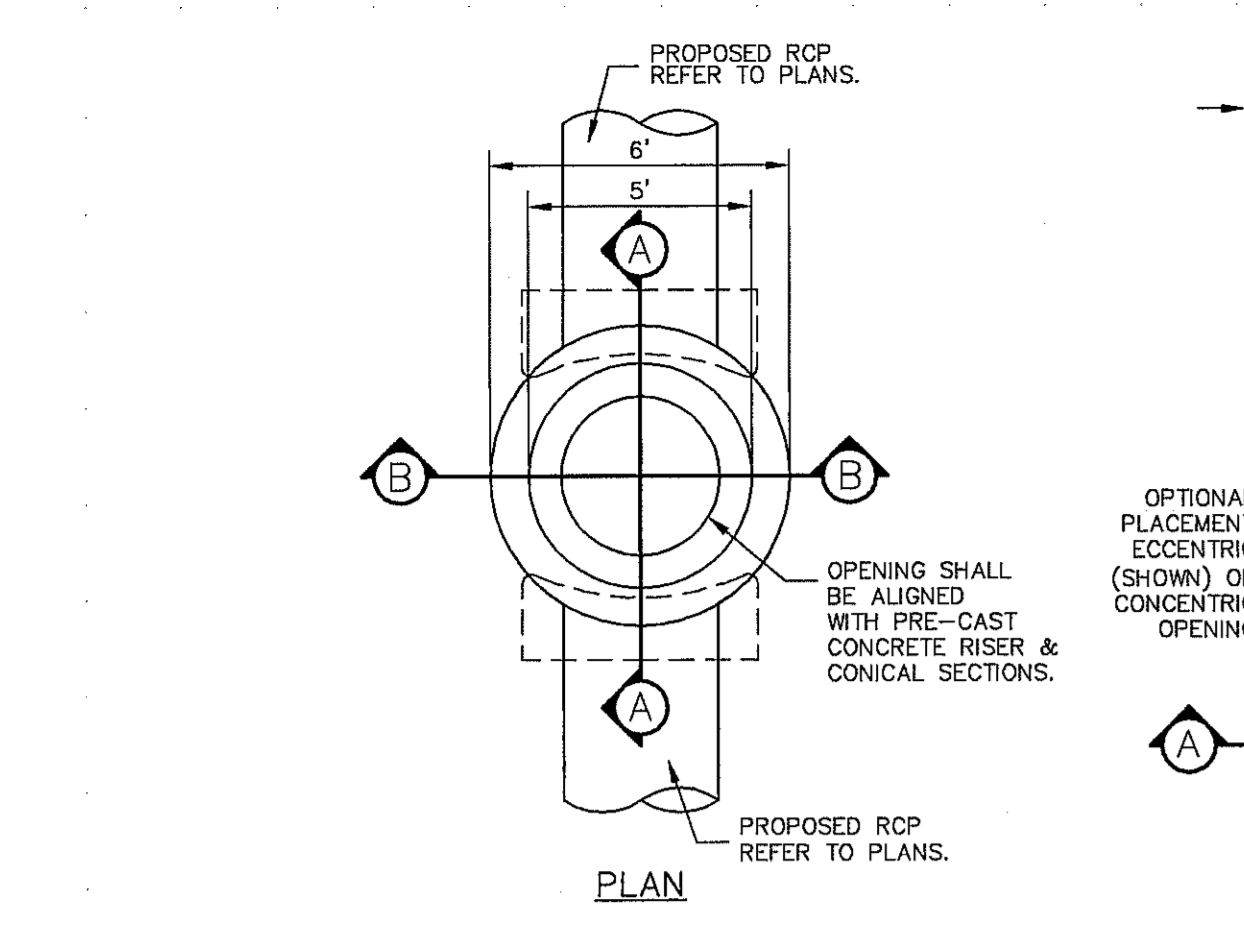
SHEET TITLE

DRAINAGE DETAILS (1 OF 4)

SHEET NO.

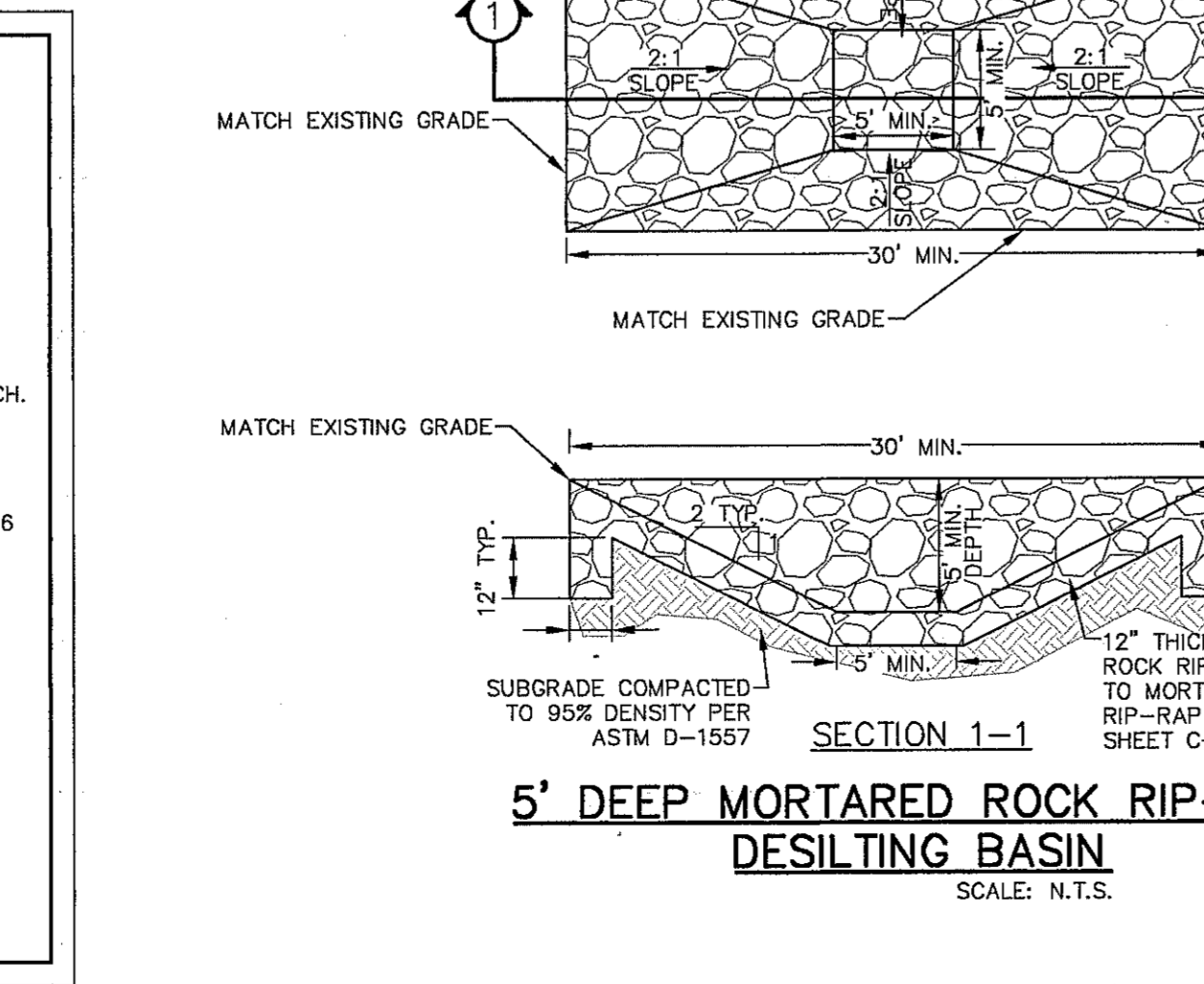
C-26

26 OF 49 SHEETS



STANDARD MANHOLE NOTES

1. THE PRE-CAST MANHOLE RISER AND CONICAL SECTIONS SHALL CONFORM TO ASTM SPECIFICATIONS C-478.
2. THE CONICAL SECTIONS SHALL BE ECCENTRIC WHERE LADDER RUNGS ARE REQUIRED.
3. NO FLAT SLAB OPENINGS SHALL BE USED FOR THIS PROJECT.
4. THE CONCRETE BASE SHALL ATTAIN A MINIMUM ALLOWABLE COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS.
5. THE PRE-CAST CONCRETE RISER AND CONICAL SECTIONS SHALL HAVE A MINIMUM ALLOWABLE COMPRESSIVE STRENGTH AT 28 DAYS OF 4000 POUNDS PER SQUARE INCH.
6. THE PRE-CAST RISER SECTIONS SHALL BE REINFORCED WITH STEEL WIRE MESH 6x6, 10-10 AND THE CONICAL SECTION SHALL HAVE 6x6, 10-10 STEEL WIRE MESH REINFORCEMENT AND 3/8 ROD AT TOP AND BOTTOM. (SEE ASTM STANDARDS PART 16 - C - 478). REINFORCING STEEL SHALL COMPLY WITH ASTM A615 GRADE 60, A706 GRADE 60 OR A497 GRADE 70. BAR BENDING AND PLACEMENT SHALL COMPLY WITH THE LATEST ACI STANDARDS.
7. MASONRY SHALL BE COMMON BRICK WITH ASTM TYPE "S" MORTAR ATTAINING A MINIMUM COMPRESSIVE STRENGTH OF 1800 P.S.I. AT 28 DAYS.
8. CONCRETE LID (FLAT TOP) MAY BE REQUIRED IN LIEU OF THE CONICAL SECTION DUE TO HEIGHT/COVER RESTRICTIONS.
9. PRECAST JOINTS ON MANHOLES SHALL BE GROUTED OR SEALED FOR A WATER TIGHT JOINT.
10. MANHOLE COVER SHALL BE SET FLUSH WITH FINISHED PAVEMENT.
11. SUBGRADE FOR MANHOLES SHALL BE COMPACTED TO A MINIMUM OF 95% IN ACCORDANCE WITH ASTM D1557.



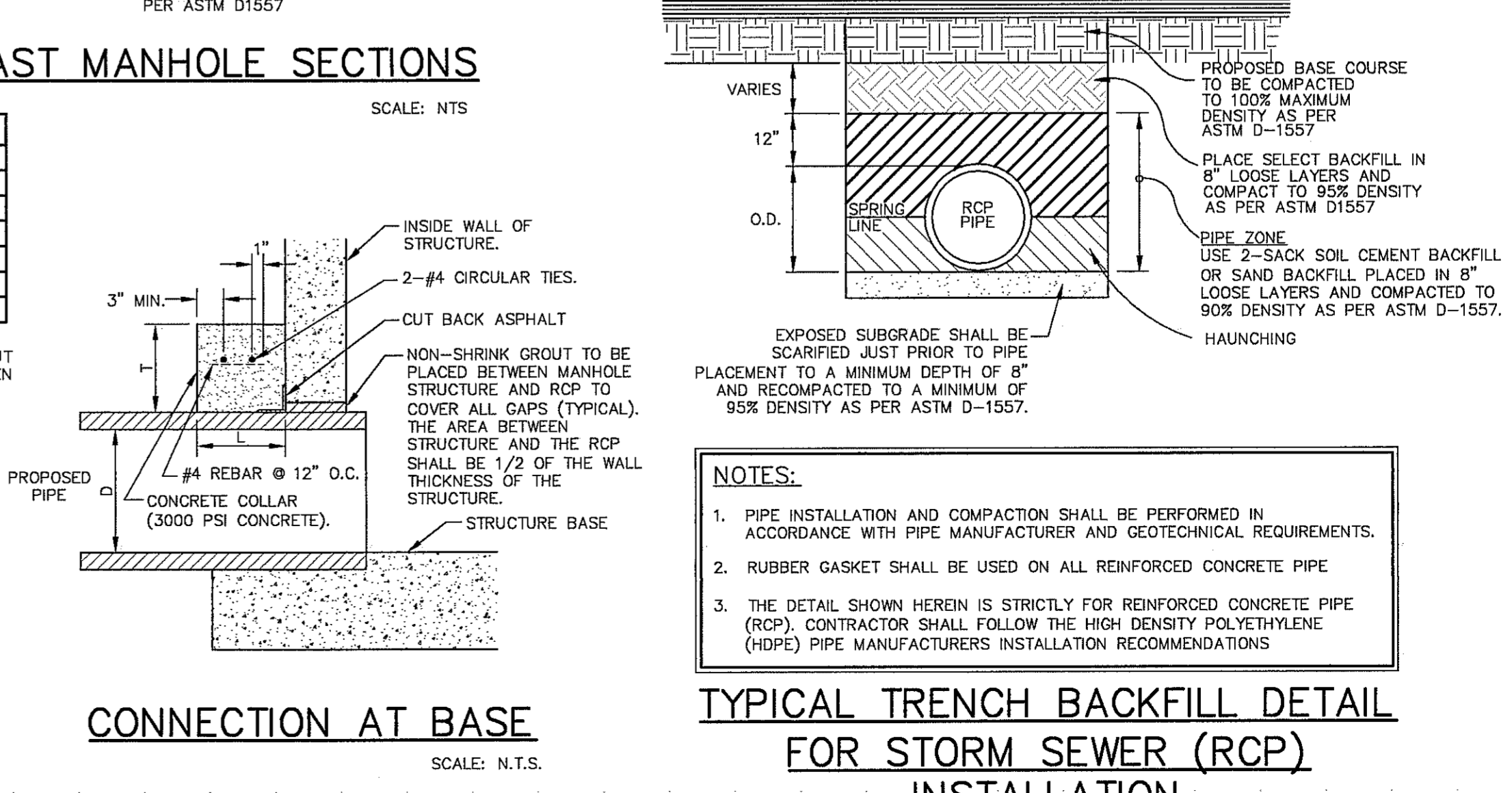
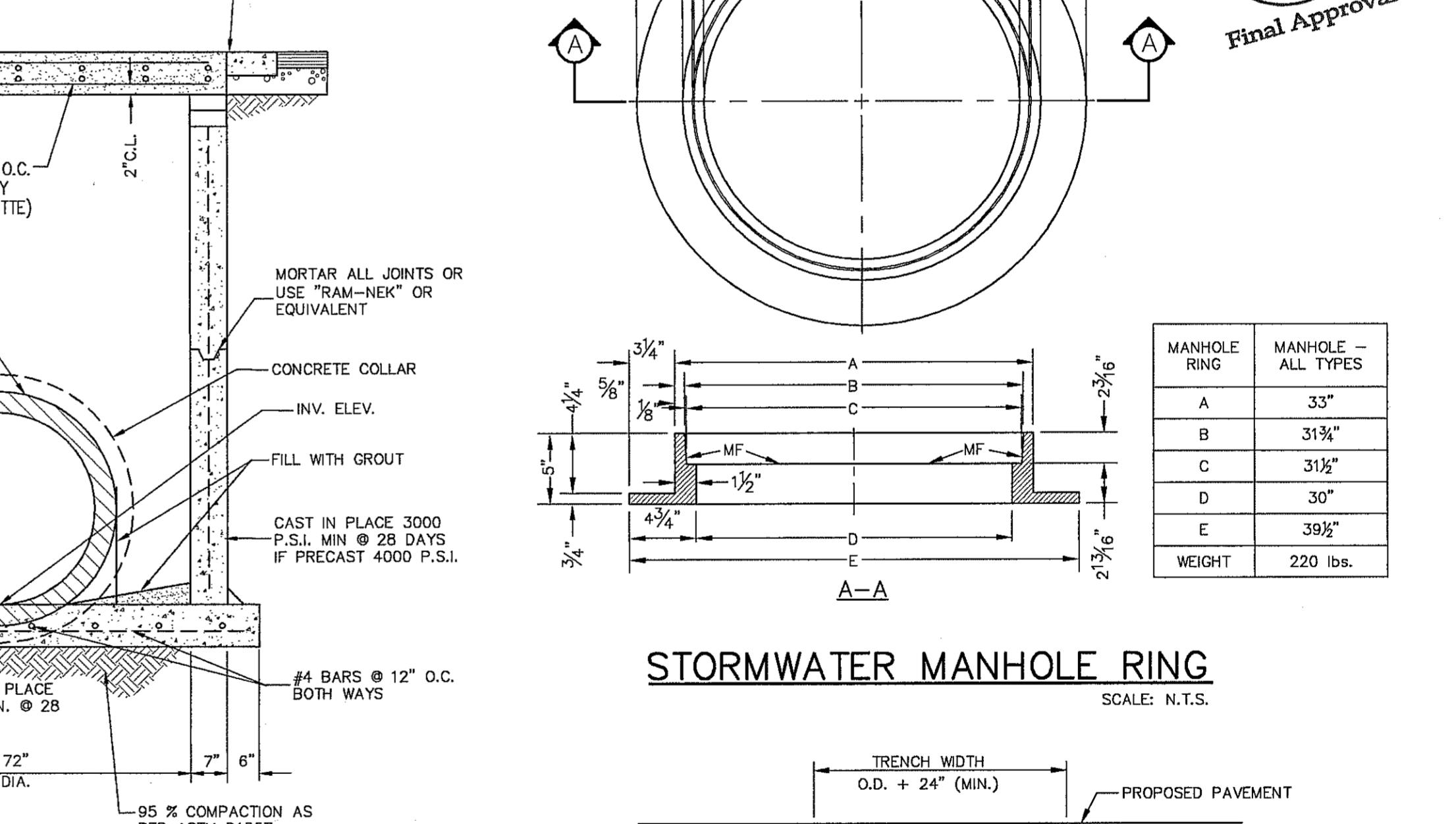
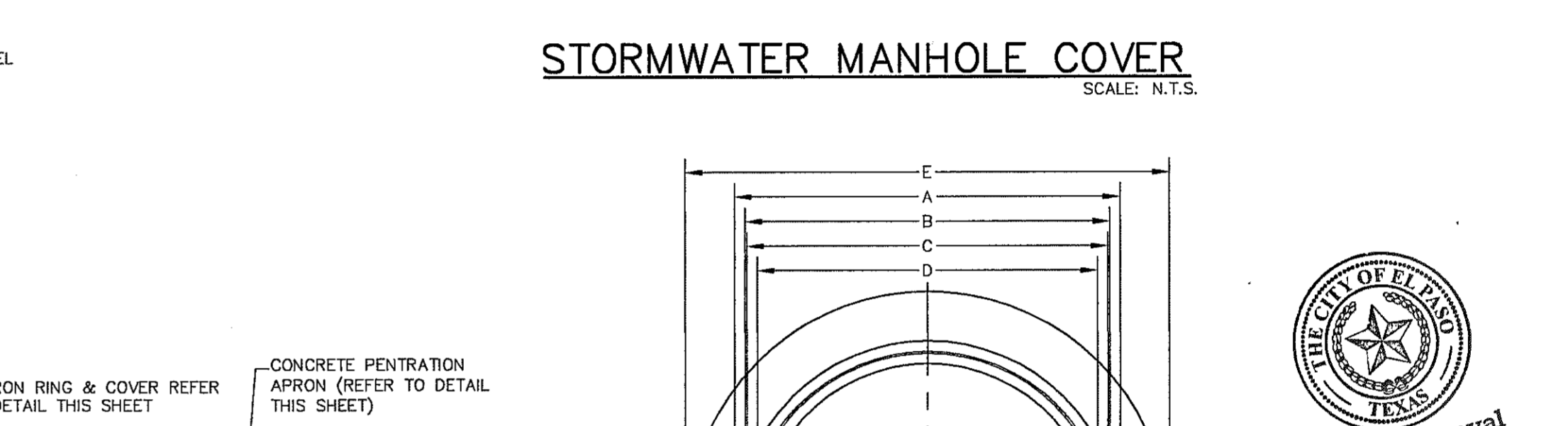
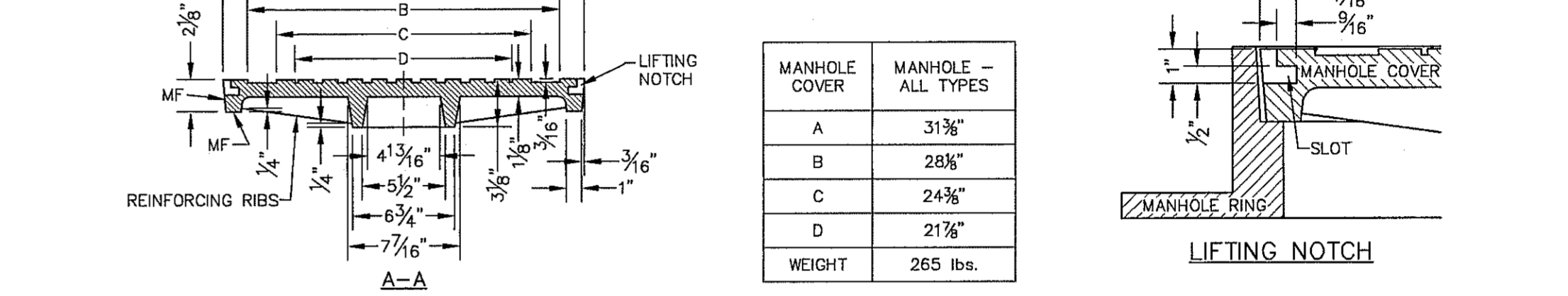
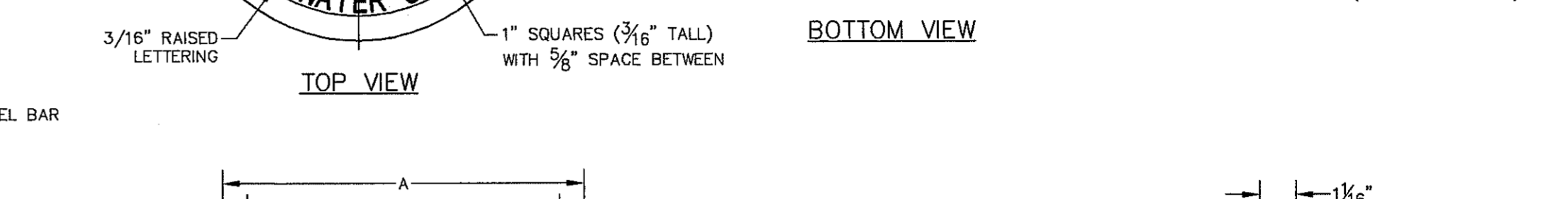
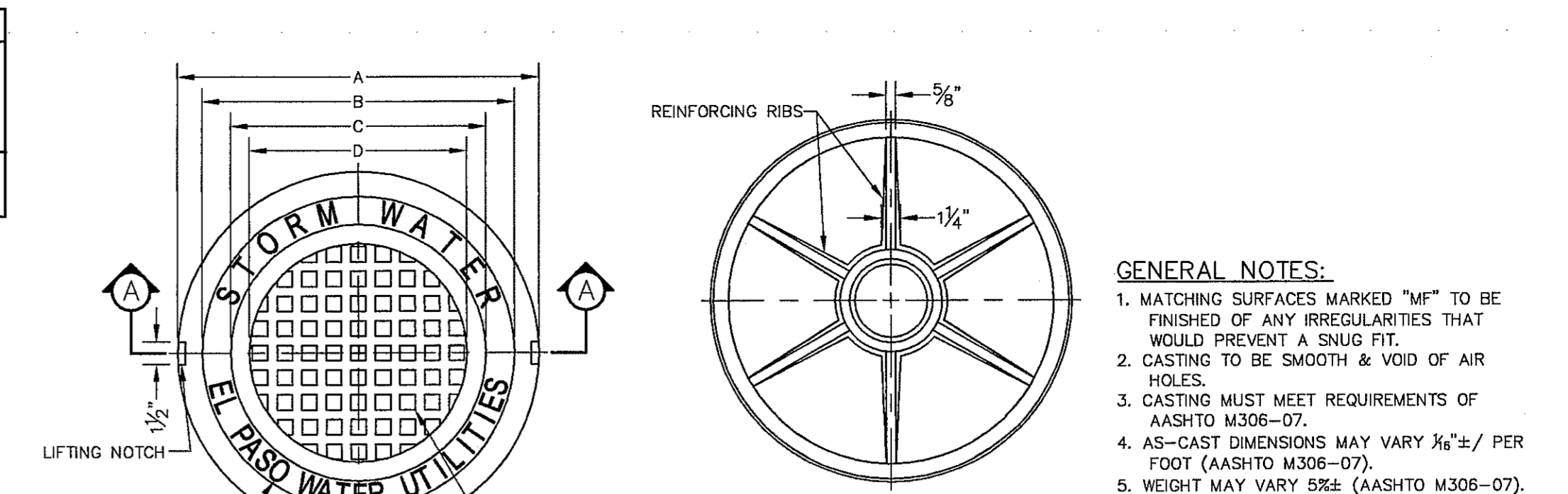
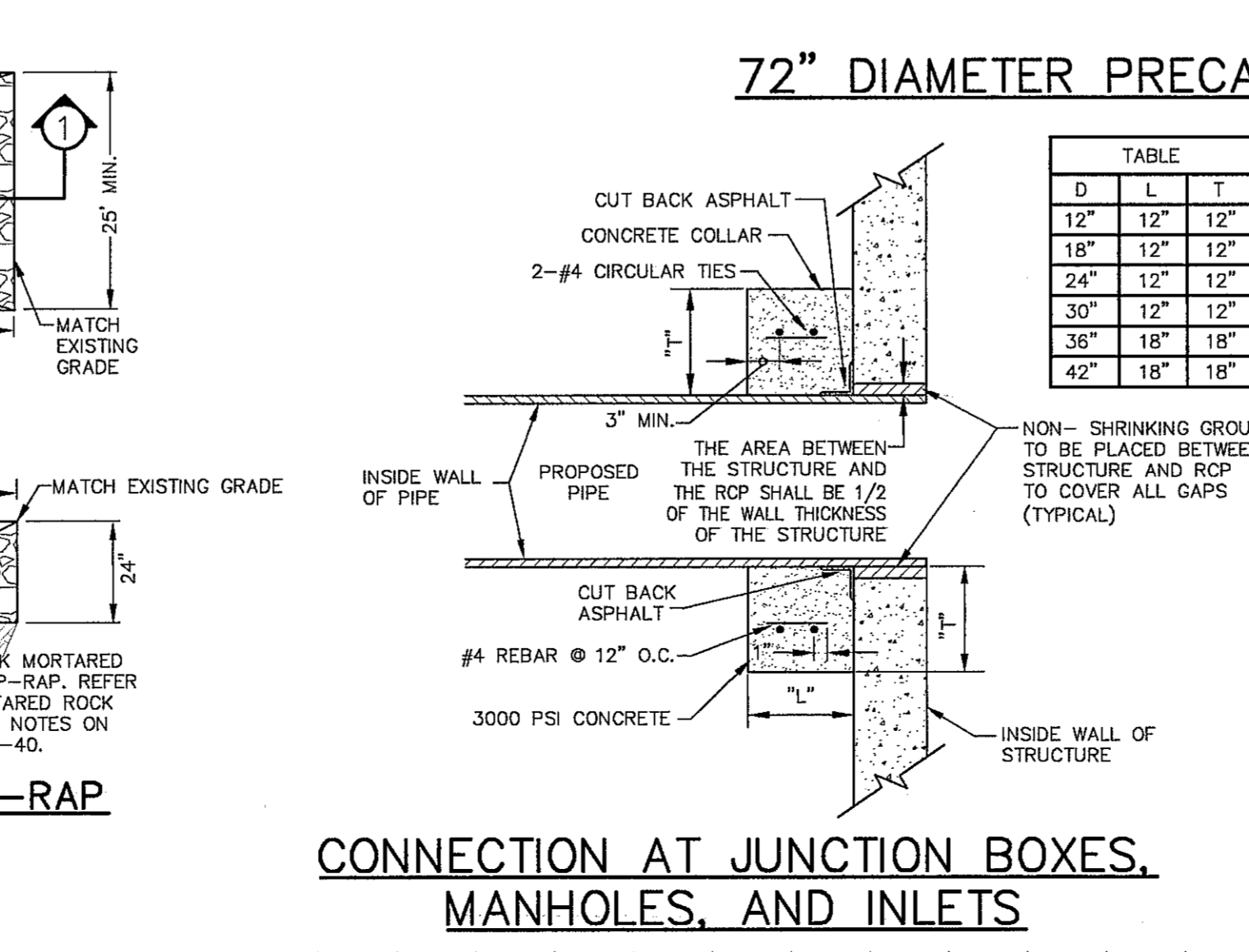
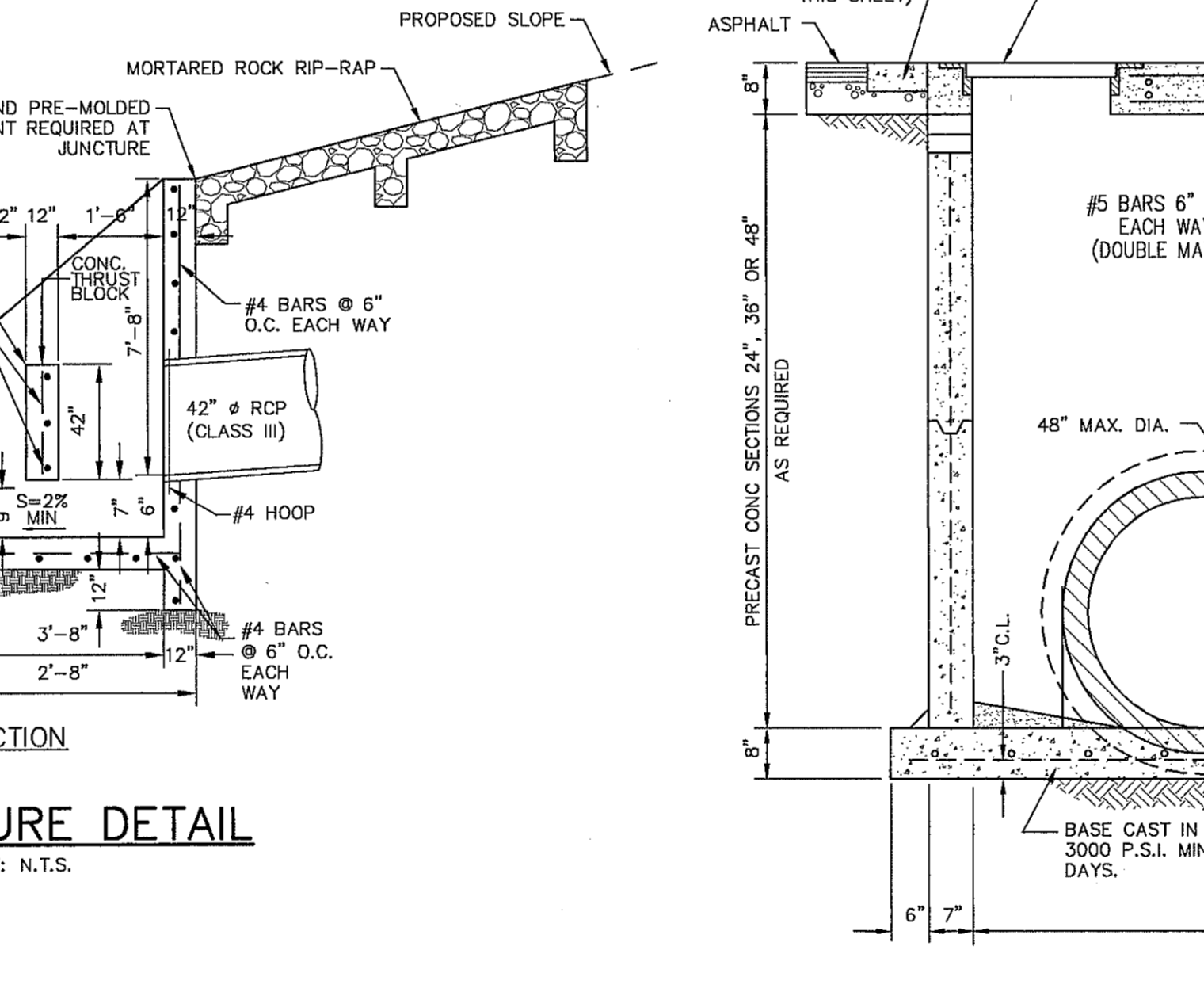
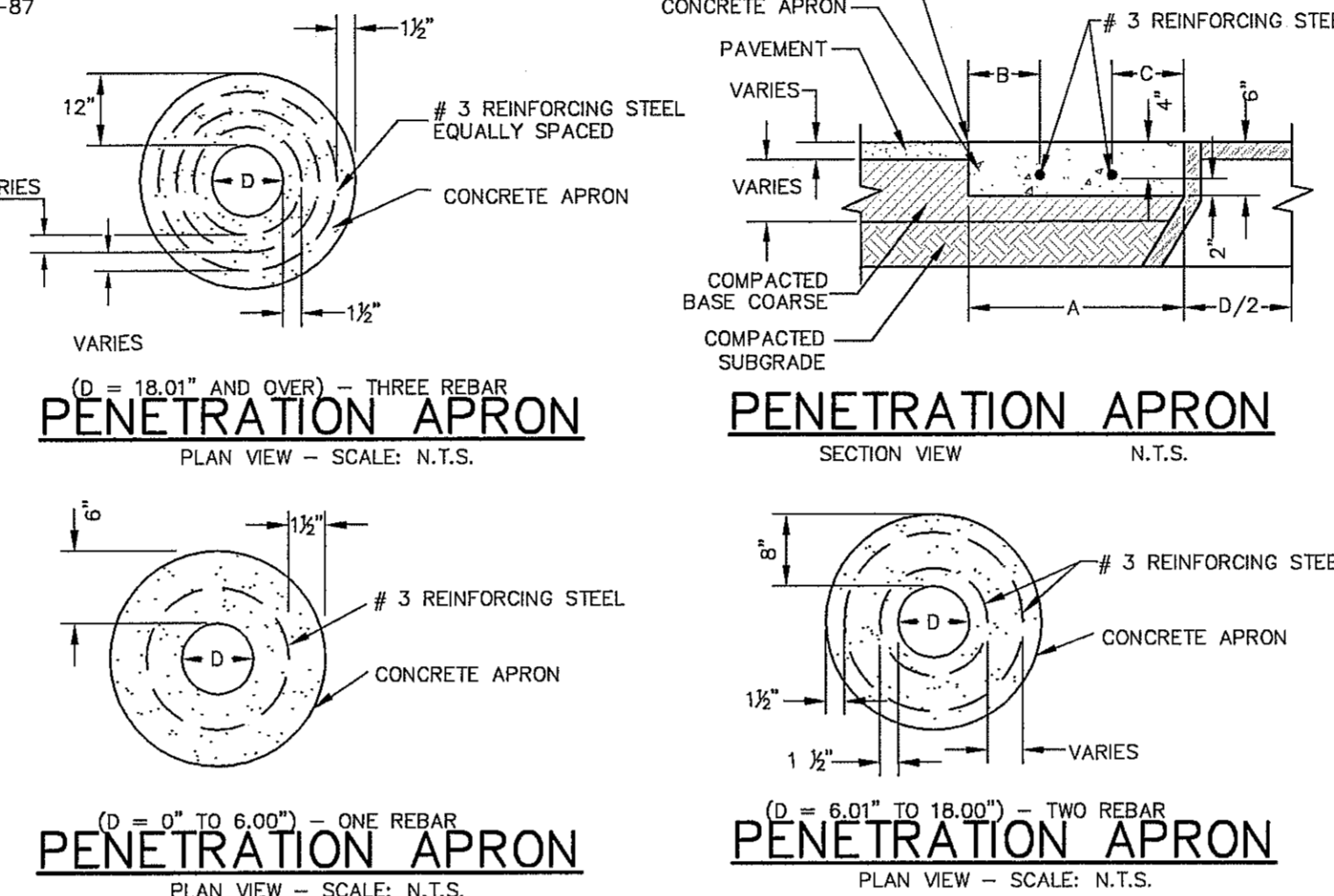
CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS				
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.00	6	1	1 1/2	1 1/2
6.01 TO 18.00	8	2	1 1/2	1 1/2
18.01 AND OVER	12	3	1 1/2	1 1/2

CONSTRUCTION NOTES:

1. ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
2. ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
3. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
4. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
5. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

GENERAL NOTES:

1. THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED).
2. TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.



PROJECT TITLE
FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
DRAINAGE
DETAILS
(2 OF 4)

SHEET NO.
C-27
27 OF 49 SHEETS

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE
BY

REVISION

QUANTUM
engineering
INCORPORATED
Texas Registered Engineering Firm F-005146

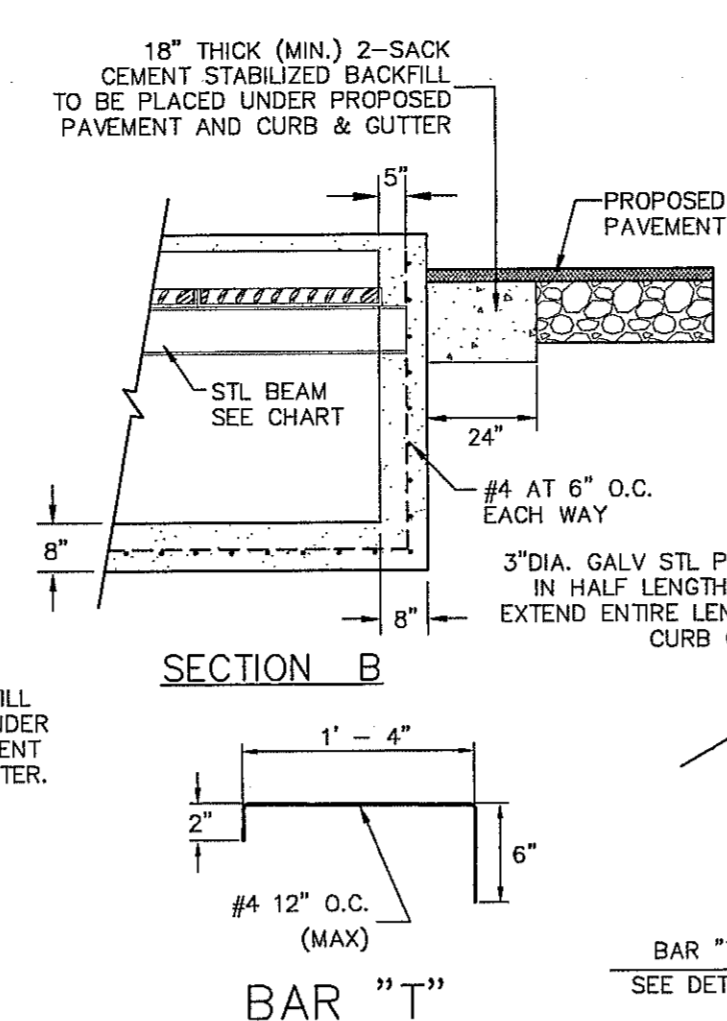
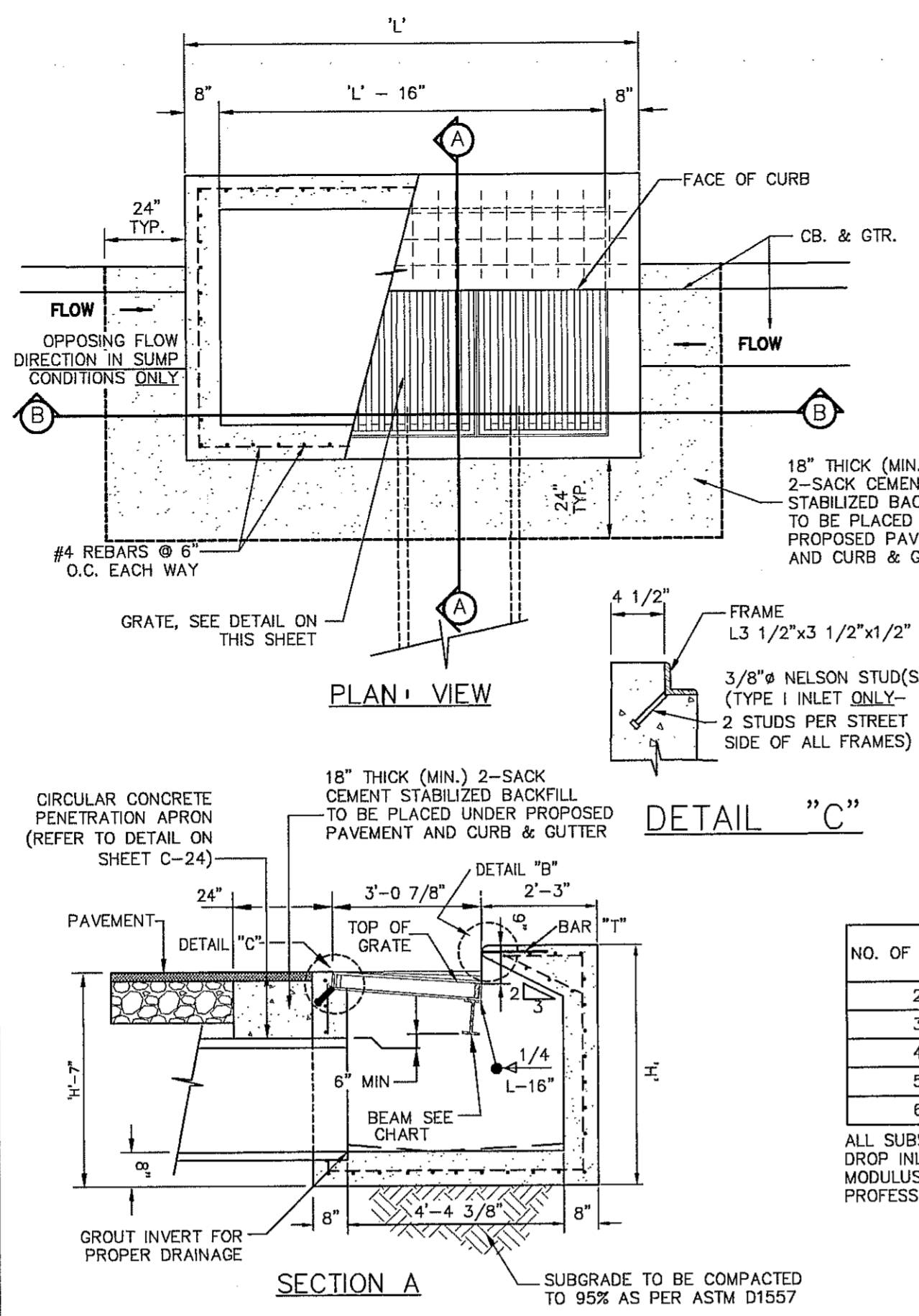
414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373

SCALE:
HORIZONTAL: N/A
VERTICAL: N/A
CONTOUR INTERVAL: N/A
DATE: OCTOBER 2016
DESIGNED BY: M.A.G.
DRAWN BY: C.A.G.
CHECKED BY: R.A.G.
APPROVED BY: J.B.S.
JOB NO.: 1515

Final Approval

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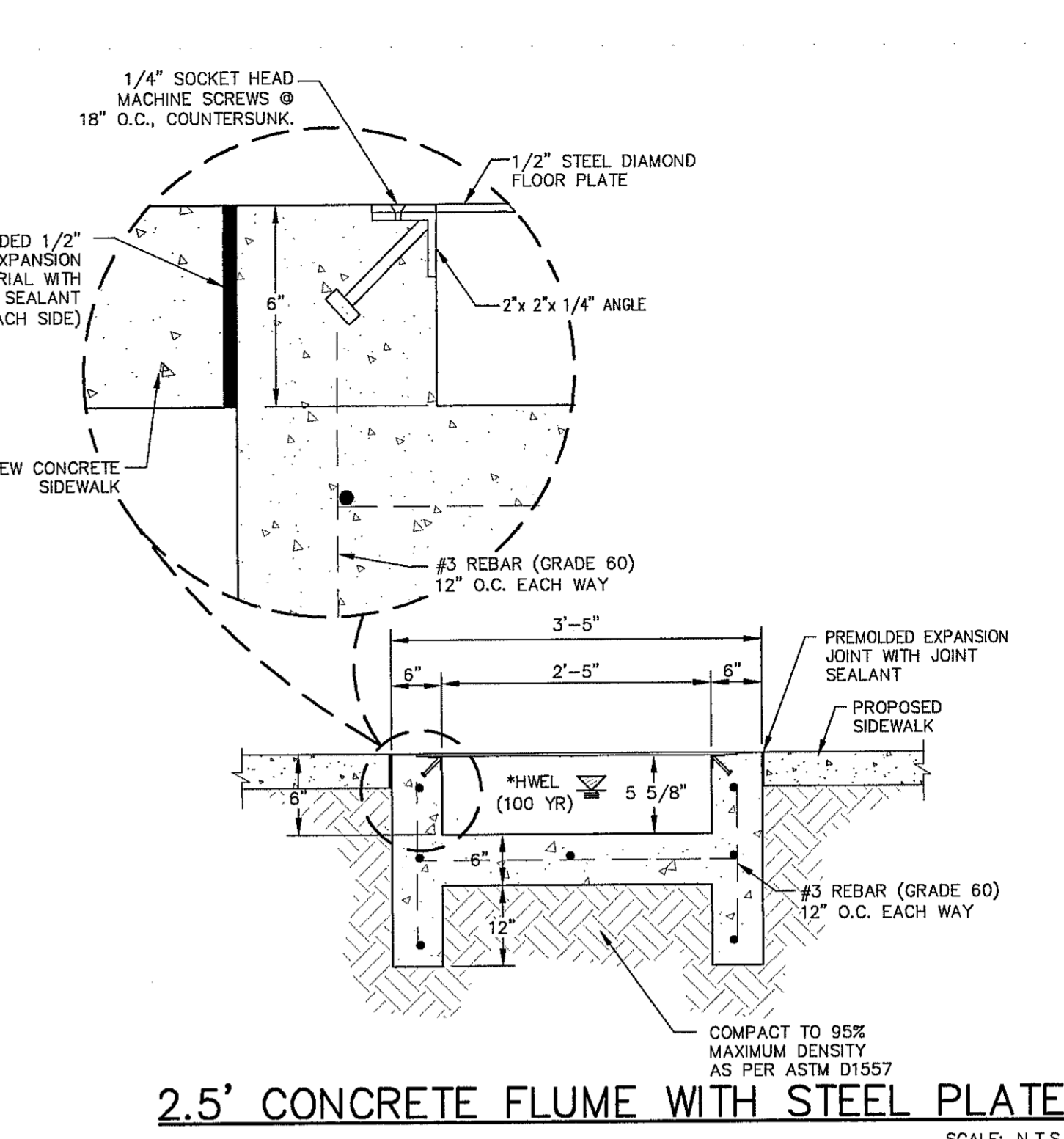
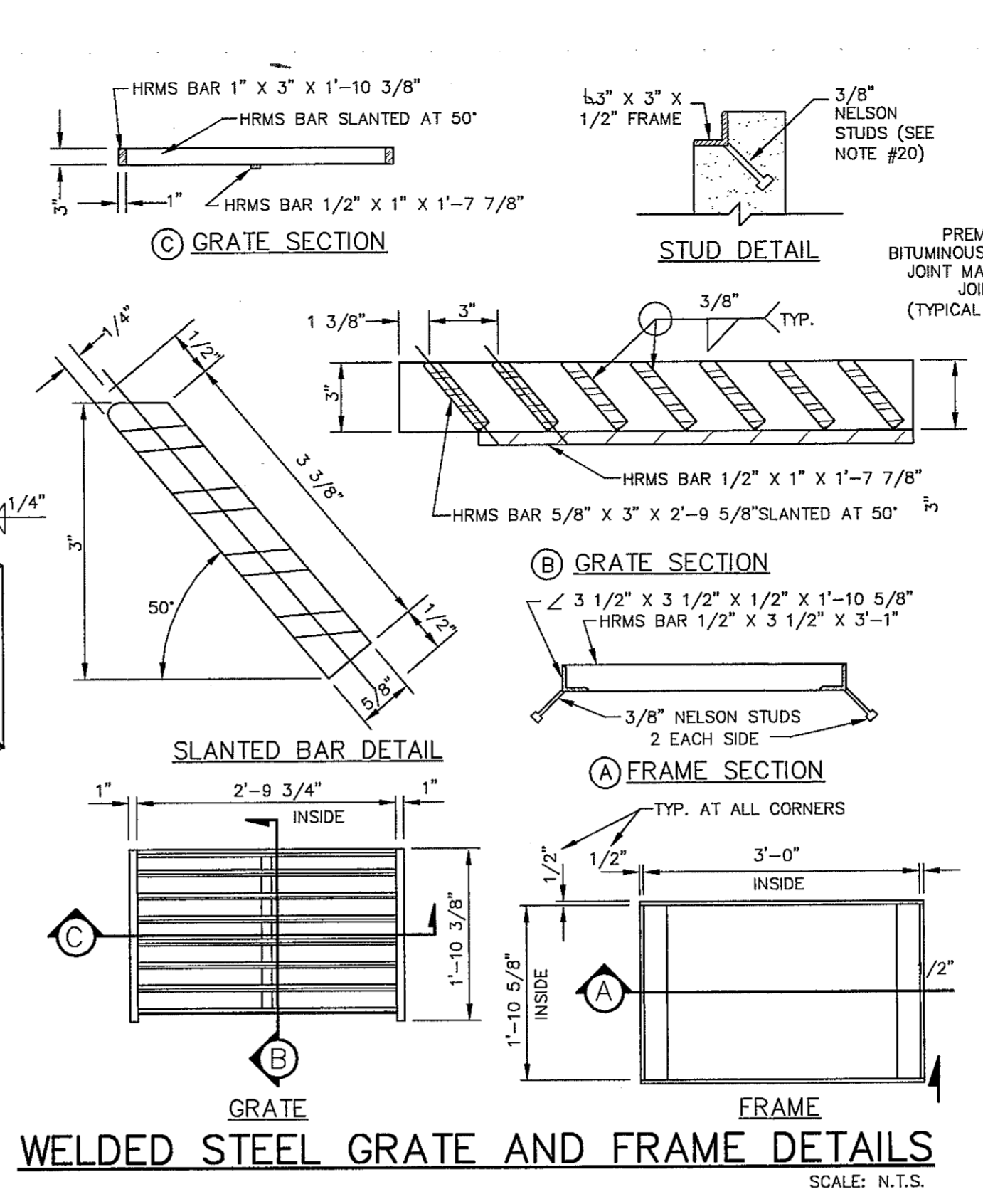
- DROP INLET GENERAL NOTES:**
1. WELDED STEEL OR CAST GRATES AS DETAILED ARE ALL ACCEPTABLE GRATES. MIXING OF ALTERNATE TYPES OF GRATES ON THE SAME PROJECT WILL BE PERMITTED WITH THE APPROVAL OF THE CITY ENGINEER.
 2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS.
 3. SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY AN ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
 4. GRATES SHALL BE INSTALLED IN FRAME WITH FLOW ARROW POINTING DOWNSTREAM OR TOWARD THE LOW POINT IN A SUMP.
 5. WELDED GRATES SHALL BE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-183 OR OF CORROSION RESISTANT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-161 OR M-222 OR BE MADE OF OTHER APPROVED STEELS OF EQUAL QUALITY. MIXING GRADES OF STEEL ON THE SAME GRATE WILL NOT BE PERMITTED.
 6. GRATES MADE OF M-183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
 7. ALL WELDS SHALL HAVE A MINIMUM OF 1/4" FILLET AND SHALL CONFORM TO THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND TO THE AWS STRUCTURAL WELDING CODE. ELECTRODES SHALL BE COMPATIBLE TO THE DIFFERENT GRADES OF STEEL THAT COMPRISE THE GRATE MEMBERS.
 8. CAST GRATES SHALL BE CAST STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-103, GRADE 65-35 OR OF DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-536, SPECIAL GRADE 60-45 OR OF GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M-105, CLASS 35B OR ASTM A 48 CLASS 35B. THE SPECIFICATIONS OF GENERAL APPLICATION FOR CAST STEEL GRATES SHALL BE AASHTO M-103 SCOPE 1.2.1, GRADE N-1.
 9. FERROUS CASTINGS SHALL BE OF UNIFORM QUALITY, FREE OF BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR OTHER APPROVED CLEANING METHOD. AFTER CLEANING THEY SHALL BE COATED WITH ASPHALT BASE PAINT RESULTING IN A SMOOTH COATING, TOUGH AND TENACIOUS WHEN COLD, NOT TACKY OR BRITTLE.
 10. ALL CASTING SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
 11. ALL CONCRETE TO BE 3000 P.S.I. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
 12. MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCING.
 13. EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER AND PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
 14. STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH TxDOT ITEM 446 "PAINT AND PAINTING"
 15. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
 16. GRATES WILL BE DEPRESSED 1" BELOW PROPOSED OR EXISTING GRADE.
 17. ALL REINFORCING BARS TO BE #4 BARS AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
 18. INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED.
 19. LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
 20. TWO 1/2"x4" LONG CONCRETE ANCHOR STUDS REQUIRED FOR EACH SIDE OF FRAME, WHERE RESTING ON CONCRETE, USE NELSON STUDS OR EQUAL.
 21. THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.



- NOTES**
1. H = 20" MAXIMUM
 2. CONCRETE TO BE 3000 PSI MIN CORE TEST @ 28 DAYS.
 3. GRATE TO BE PERPENDICULAR TO TRAFFIC.

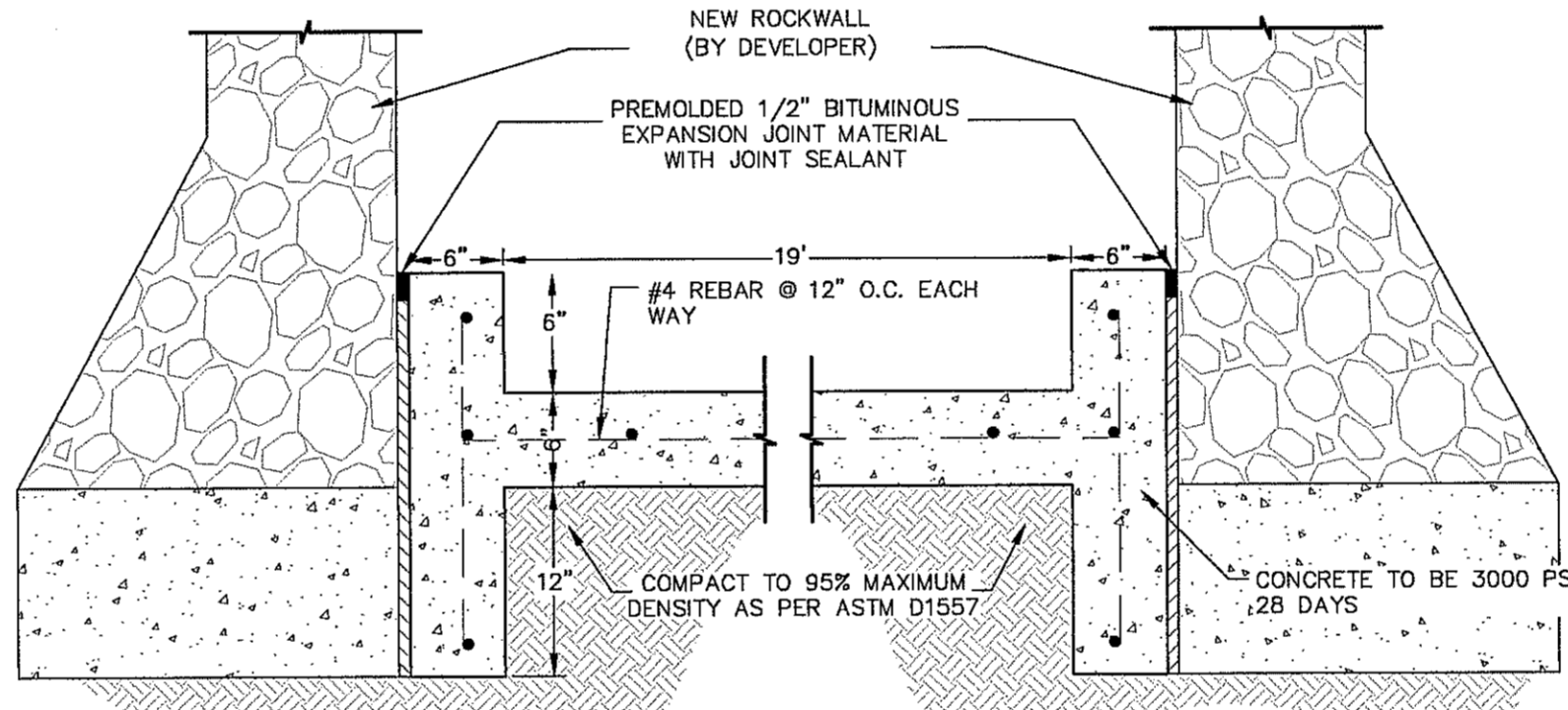
NO. OF GRATES	L'	BEAM	
		LENGTH	MINIMUM SIZES
2	5'-2 1/4"	4'-8 1/4"	W6X12, S6X12.5, MC6X15.1
3	7'-1 7/8"	6'-7 7/8"	W8X15, S7X18.4, MC7X19.1
4	9'-1 1/2"	8'-7 1/2"	W10X19, S8X18.4, MC10X22
5	11'-1 1/8"	10'-7 1/8"	W12X16, S8X23, MC10X22
6	13'-0 3/4"	12'-6 3/4"	W12X19, S8X23, MC10X25

ALL SUBSTITUTIONS OF STRUCTURAL STEEL BEAMS AND CHANNELS FOR DROP INLETS MUST BE SUBMITTED FOR REVIEW AND INCLUDE SECTION MODULUS AND DEFLECTION CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS.

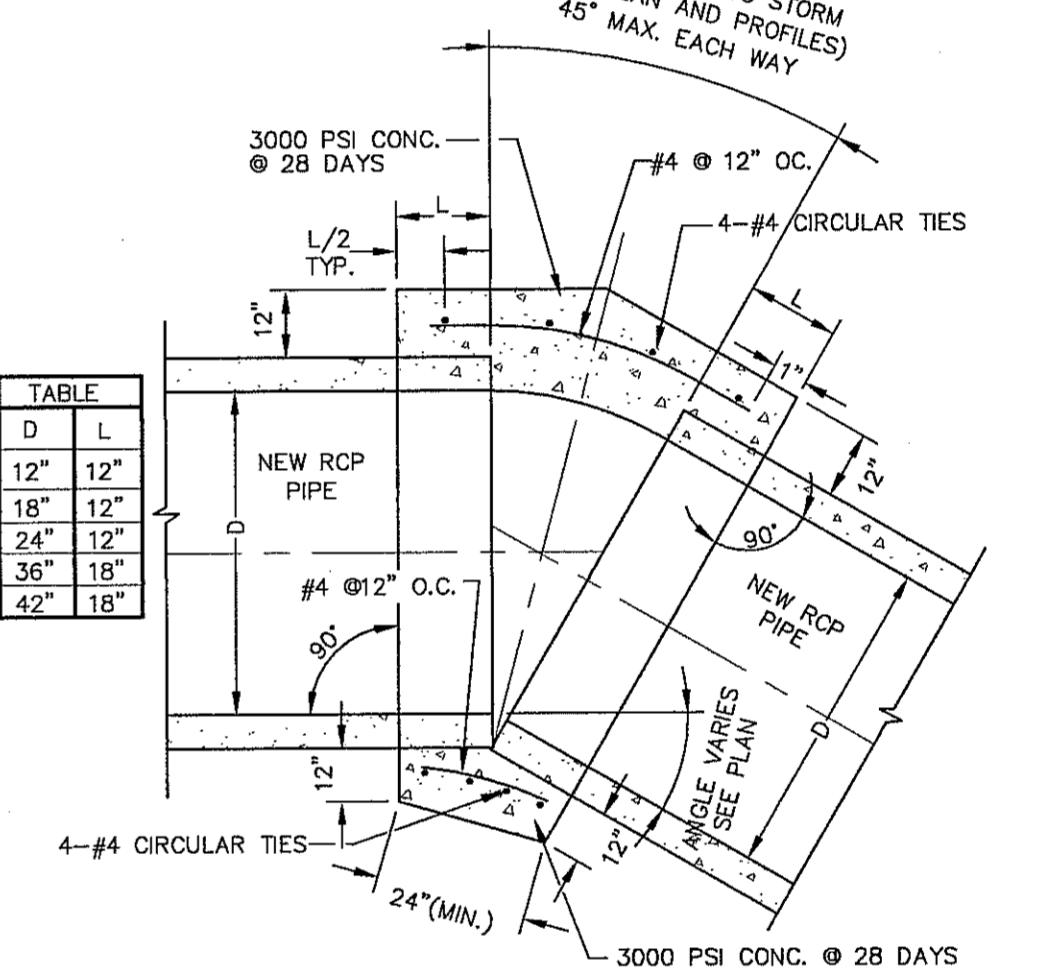


DROP INLET (TYPE I) DETAIL
SCALE: N.T.S.

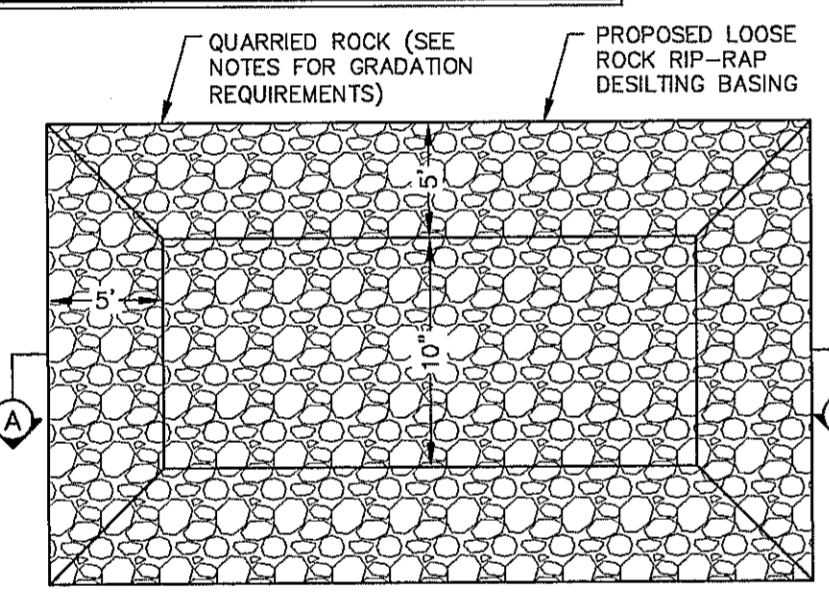
THICKNESS	MAXIMUM SIZE (LB)	90% SIZE (LB)	50% SIZE (LB)	8% SIZE MINIMUM (LB)
18 IN.	530	290-475	105-220	22



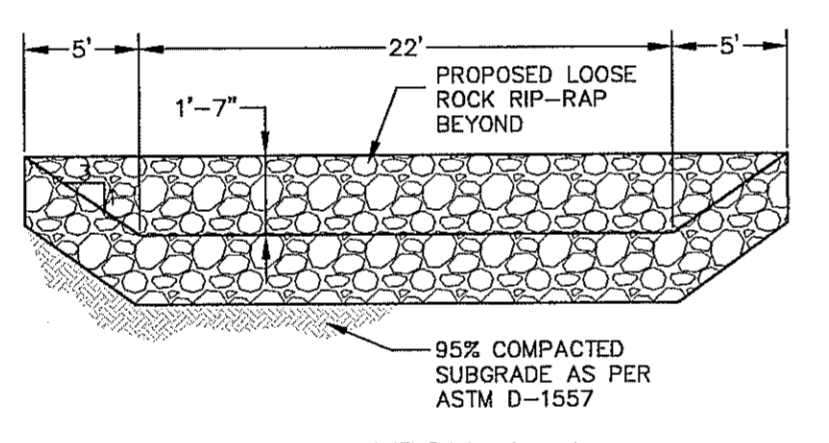
- EMERGENCY OVERFLOW CONCRETE PAVEMENT AT DRAINAGE R.O.W.**
SCALE: N.T.S.
1. CONCRETE FLUME AND PAVEMENT SHALL BE 3,000 P.S.I. MIN. @ 28 DAYS.
 2. DUMMY JOINT REQUIRED AT 10' O.C.
 3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURB RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT CURB & GUTTER DIMENSION.
 4. SUBGRADE MUST BE FORMED AND COMPACTED TO 95% ASTM D1557.
 5. EXPANSION JOINTS REQUIRED AT 50' O.C.
 6. EXPANSION JOINT FILLER SHALL BE PLACED WHEREVER FLUME ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS, ROCKWALLS, OR BUILDINGS.
 7. JOINT SEALING COMPOUND: WHERE JOINTS IN CONCRETE CONSTRUCTION ARE SHOWN TO BE SEALED, THE JOINT SEALING COMPOUND SHALL BE COLD-APPLIED TWO-COMPONENT POLY-SULFIDE SEALANT SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR USE IN SUBMERGED JOINTS. THE HANDLING PRIOR TO SEALING SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER. JOINT SEALING COMPOUND SHALL BE SIKAFLEX -2C NS E2 MIX OR ENGINEER APPROVED EQUIVALENT. A TWO COMPONENT EPOXY PRIMER SUITABLE FOR THE USE IN SUBMERGED JOINTS AND COMPATIBLE WITH THE SEALER SHALL BE USED IN ALL JOINTS, COMPOUND TO BE SONNEBORN OR APPROVED EQUIVALENT.



- CONCRETE PIPE COLLAR DETAIL**
SCALE: N.T.S.
- NOTES:**
1. A CONCRETE COLLAR IS REQUIRED WHERE PIPES OF DIFFERENT DIAMETERS OR MATERIALS ARE JOINED, OR WHERE THE CHANGE ALIGNMENT OR GRADE EXCEEDS THAT ALLOWED FOR AN ORDINARY JOINT.
 2. WHERE PIPES OF DIFFERENT DIAMETERS ARE JOINED WITH A CONCRETE COLLAR, L&T SHOULD BE THOSE OF THE LARGER PIPE, D OR D' WHICHEVER IS GREATER.
 3. FOR PIPE SIZES NOT LISTED USE NEXT SIZE LARGER.
 4. FOR PIPES 24" OR LESS IN DIAMETER REINFORCE WITH W.W.M.
 5. THE DIAMETER OF THE CIRCULAR TIES SHALL BE D+(2xWALL THICKNESS)+8".
 6. FIELD CLOSURES OF PIPE OF THE SAME DIAMETER AND WITHOUT CHANGE IN GRADE OR ALIGNMENT SHALL BE MADE WITH A CONCRETE COLLAR.

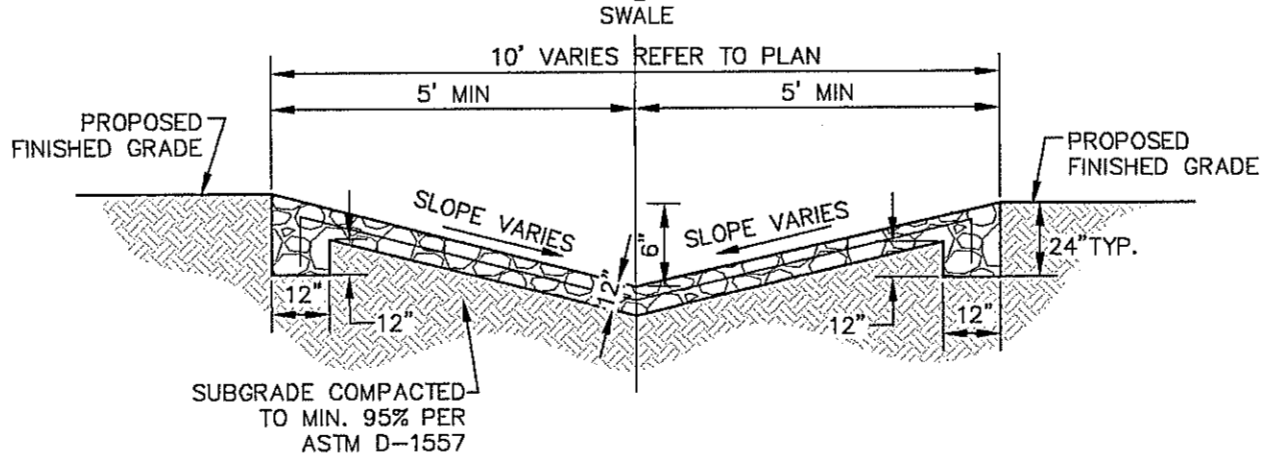


TEMPORARY DESILTING BASIN
SCALE: N.T.S.

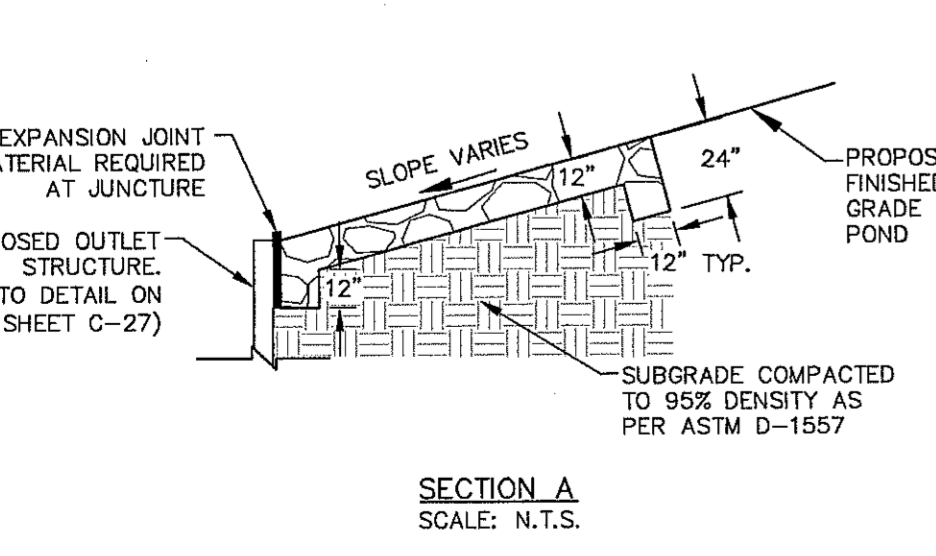
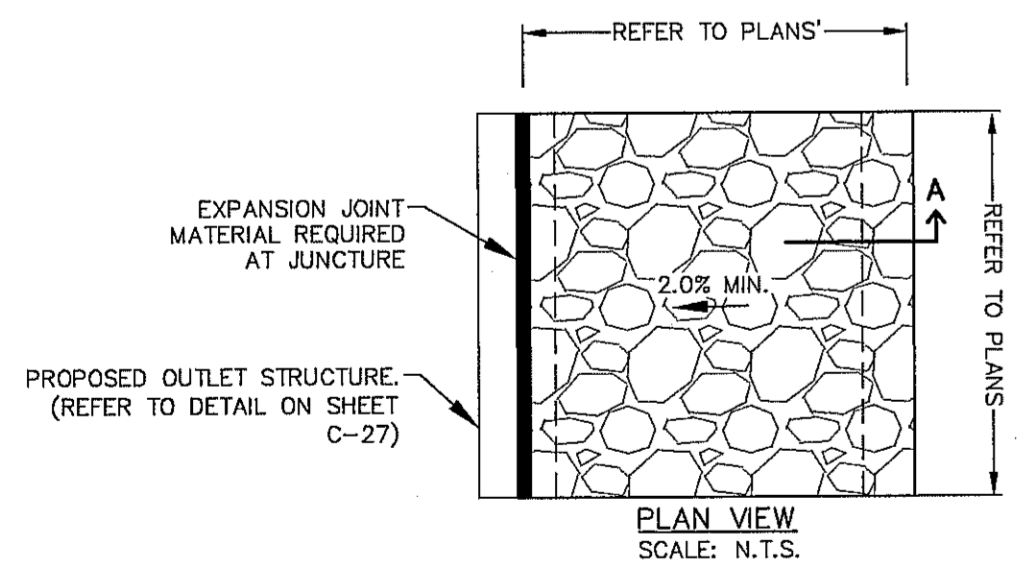


SECTION A-A

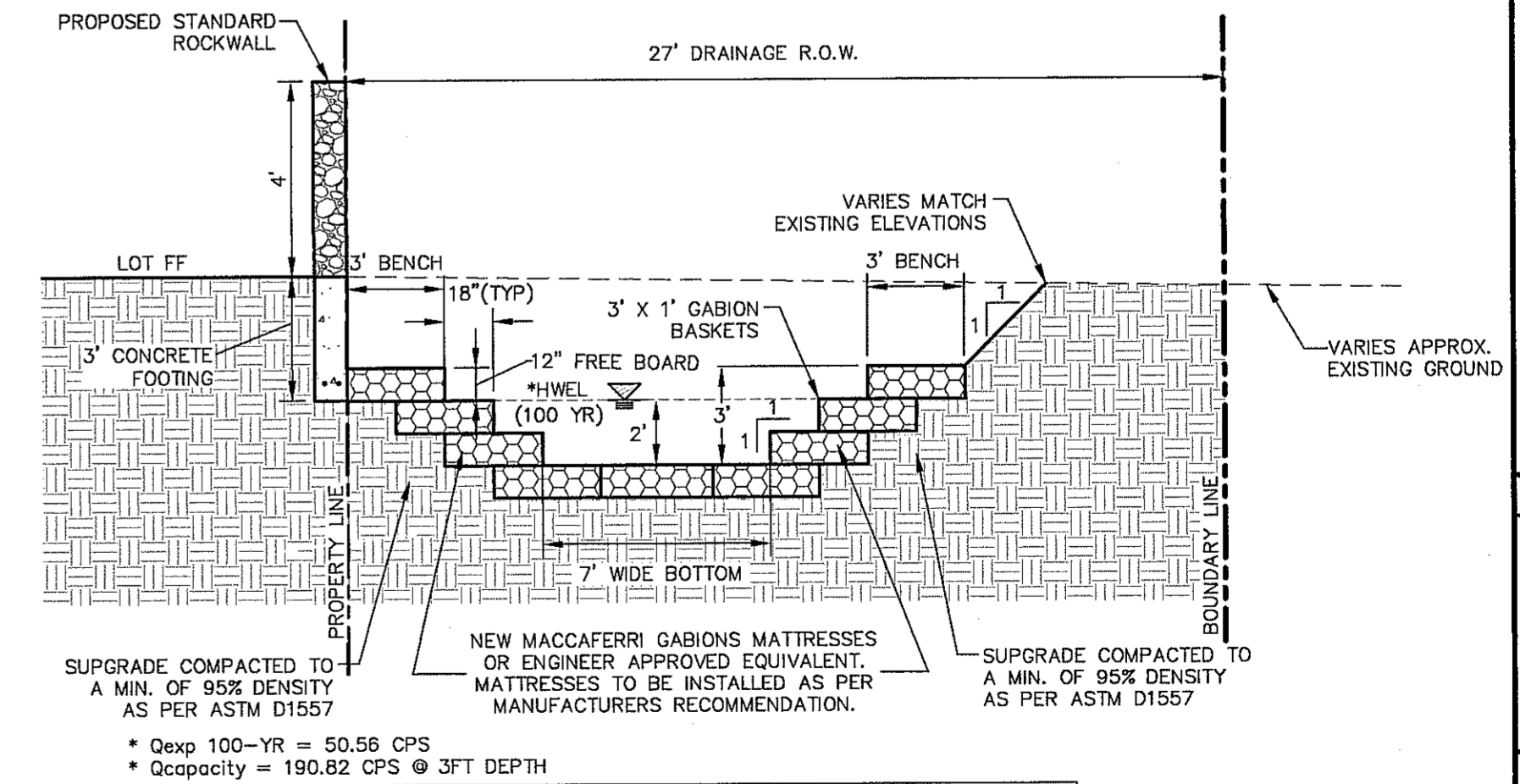
- MORTARED ROCK RIP-RAP NOTES**
1. ROCK RIP-RAP SHALL BE A MINIMUM OF 12" MORTARED ROCK.
 2. STONE FOR ROCKWALL SHALL BE NATIVE ROCK, SOUND AND FREE FROM LOOSE OR FRAGILE INCLUSIONS. THE STONE SHALL BE DENSE AND RESISTANT TO THE ACTION OF AIR AND WATER, AND SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. MAXIMUM STONE SIZE SHALL NOT EXCEED 18-INCHES.
 3. MORTAR FOR ROCKWALLS SHALL BE ASTM C270, TYPE "S" (1800 PSI MIN. @ 28 DAYS) AND PROPORTIONED BY VOLUME AS FOLLOWS:
PORTLAND CEMENT: 1 PART
LIME: 1/4 PART
SAND: 3-1/2 PARTS
 4. PROVIDE ONE (1) INCH EXPANSION JOINT AT EVERY FIFTY (50) FEET.
 5. PROVIDE DUMMY JOINTS AT TEN (10) FEET O.C.



MORTARED ROCK RIP-RAP SWALE AT POND DETAIL
SCALE: N.T.S.



MORTARED ROCK RIP-RAP AT OUTLET STRUCTURE DETAIL
SCALE: N.T.S.



- *NOTE:**
1. CHANNEL FLOW LINE TO BE A MINIMUM RUNNING SLOPE OF 0.60%

GABION DRAINAGE CHANNEL DETAIL
SCALE: N.T.S.

PROJECT TITLE
FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
DRAINAGE DETAILS (3 OF 4)

SHEET NO.
C-28
28 OF 49 SHEETS

REFERENCES - BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM) CONTOUR INTERVAL: ONE (1) FOOT

DATE
11/17/14

REVISION

BY

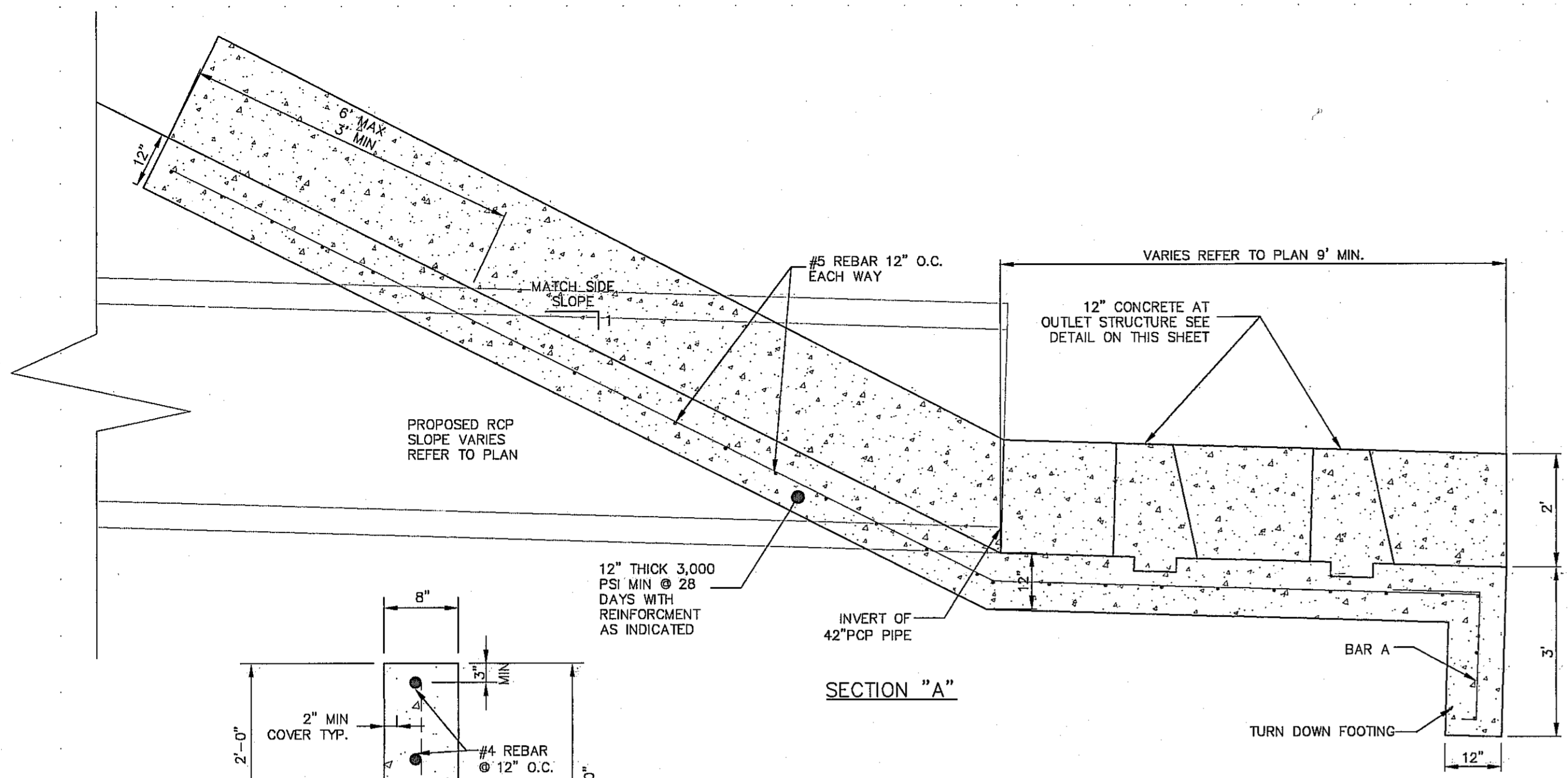
DESIGN BY: R.A.G.
DRAWN BY: R.A.G.
CHECKED BY: R.A.G.
DATE: OCTOBER-2013
SCALE: N/A
CONTOUR INTERVAL: N/A

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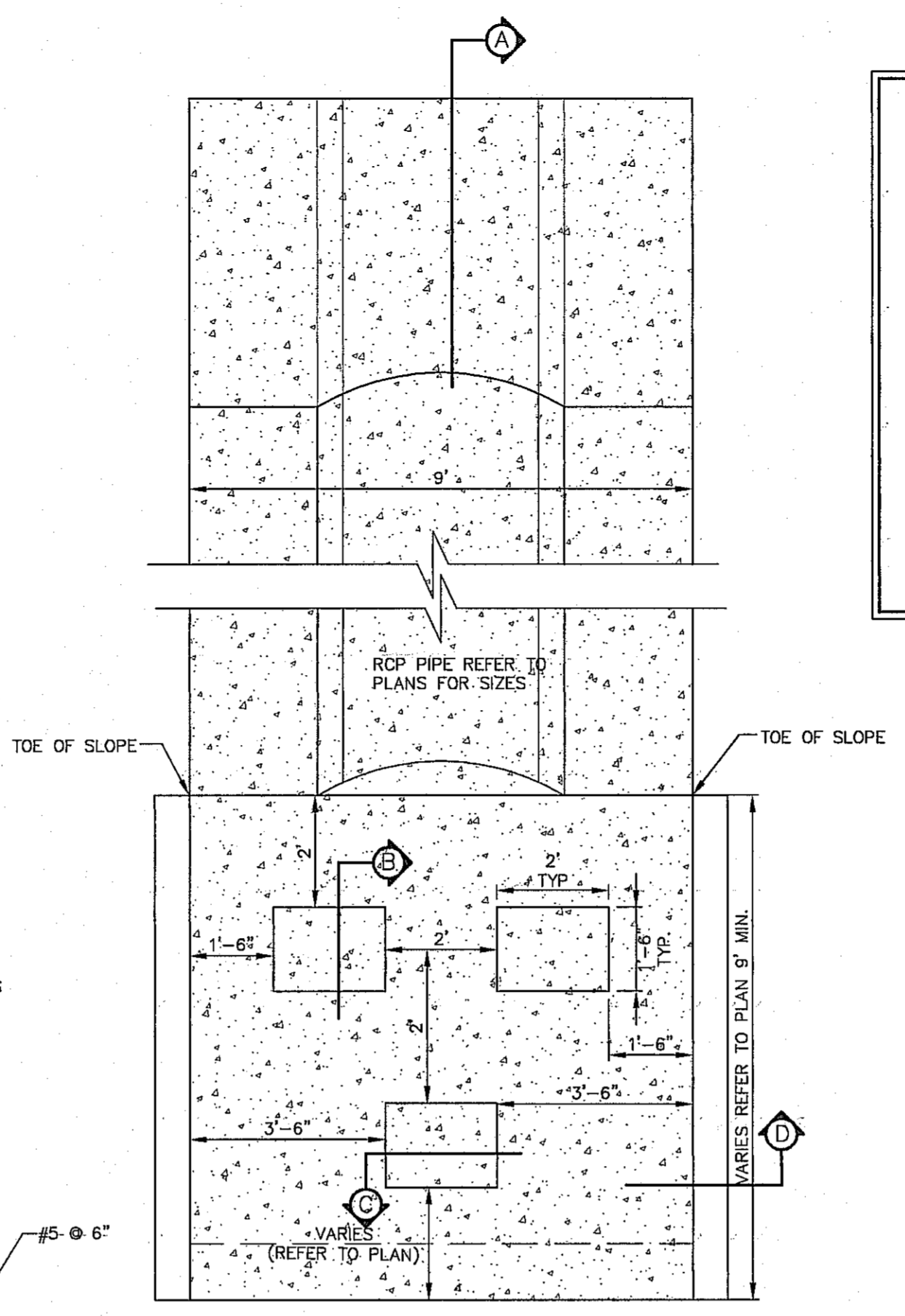
QUANTUM ENGINEERING INCORPORATED
414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373

Texas Registered Engineering Firm F-005146

Oct 27, 2016 9:55am mmd
 C:\Active Drawings\1915 Franklin Hills Unit 10 Subdivision\Civil\City Comments\3rd City Submittal\C-29-29 Drainage Details.dwg

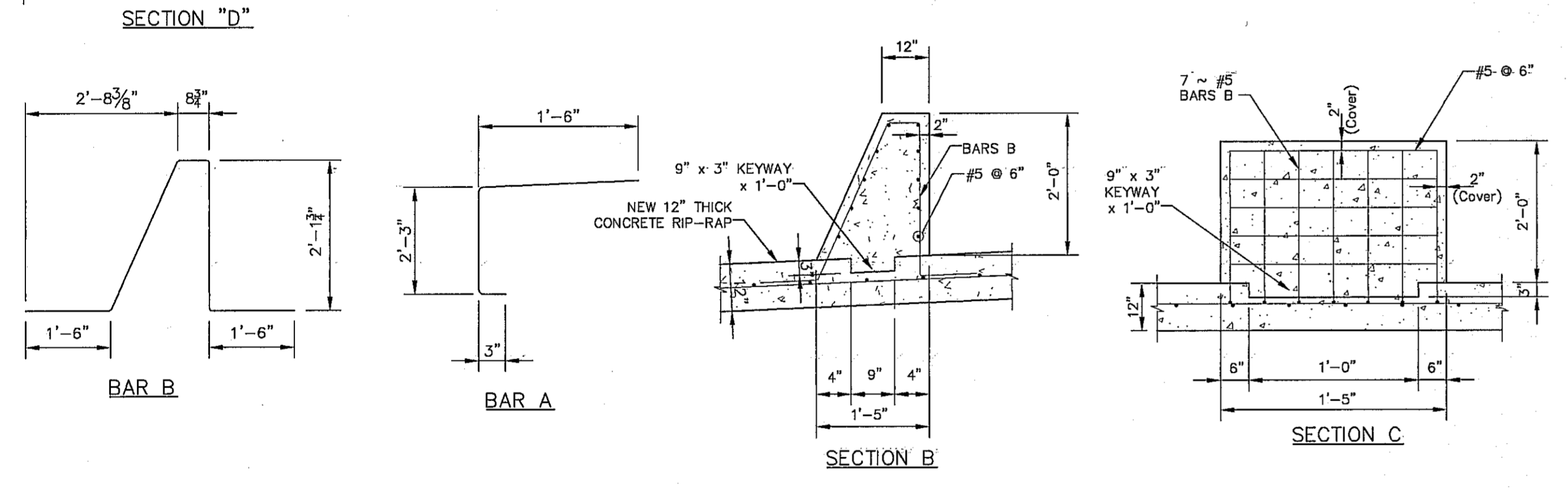


TYPICAL CONCRETE APRON WITH ENERGY DISSIPATERS
 SECTION A
 SCALE: NTS

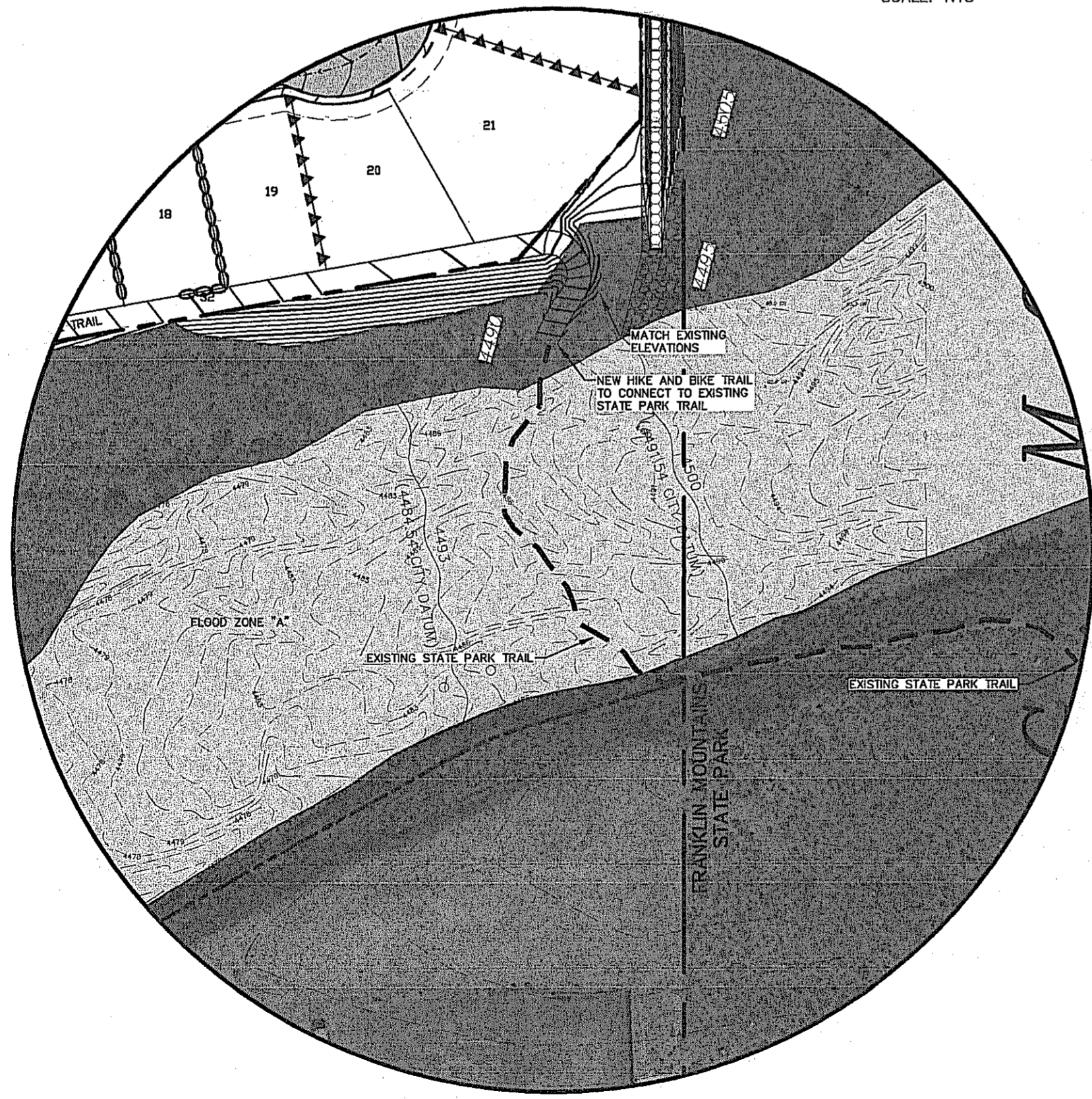


PLAN VIEW

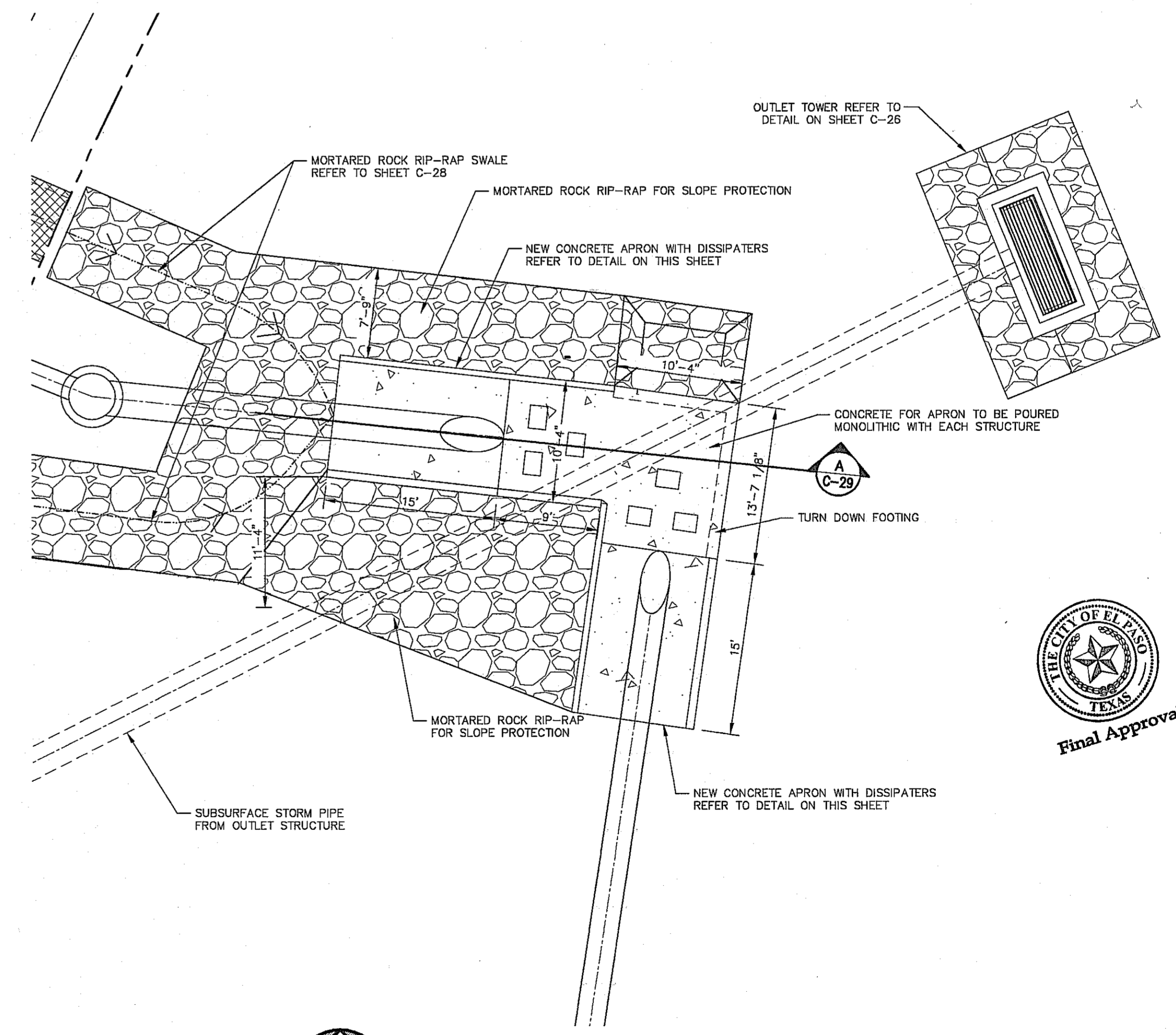
- GENERAL NOTES:**
1. ALL JOINTS BETWEEN CAST-IN-PLACE AND PRECAST SECTIONS SHALL BE SEALED WITH MORTAR.
 2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THEIR APPROVAL A MINIMUM OF THREE WEEKS PRIOR TO CONSTRUCTION.
 3. ALL FORMS SHALL BE WELL BRACED AND STRAIGHT.
 4. ALL STEEL SHALL BE FREE OF GREASE, SCALE AND DIRT.
 5. ALL CONCRETE SHALL CONFORM TO ASTM C94 AND SHALL REACH A MINIMUM STRENGTH OF 3000 P.S.I. AT 28 DAY TEST. CONCRETE SHALL NOT BE PLACED IN EXCESS OF 4" SLUMP WITHOUT PRIOR APPROVAL OF THE ENGINEER.
 6. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615. ALL #3 BARS SHALL BE 40 GRADE STEEL, ALL #4 OR LARGER BARS SHALL BE GRADE 60.
 7. ALL BARS SHALL BE TIED AT EVERY INTERSECTION. ALL STEEL SHALL BE SUPPORTED TO PROHIBIT LATERAL OR VERTICAL MOVEMENT.
 8. CONCRETE POUR SHALL NOT BE STARTED UNLESS THE SITE TEMPERATURE IS ABOVE 40 DEGREES FAHRENHEIT AND RISING FOR THE NEXT 12 HOURS.
 9. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED STRUCTURES" (ACI 315).



TYPICAL ENERGY DISSIPATER
 SCALE: NTS



OFF SITE GRADING FOR TRAIL
 SCALE: NTS



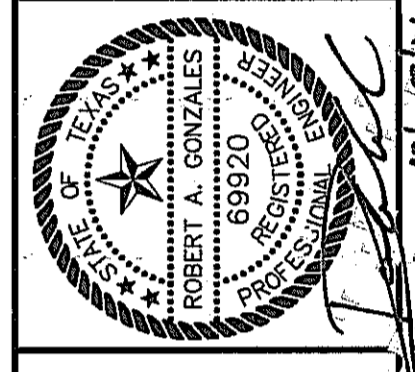
PLAN VIEW OF OUTLET STRUCTURE AT POND "B"
 SCALE: 1"=5'



REFERENCES - BENCHMARK
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM)
 CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

QUANTUM
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SCALE:	M/A	M/A
HORIZONTAL:	M/A	M/A
VERTICAL:	M/A	M/A
CONTOUR INTERVAL:		
DATE:	OCTOBER-2016	
DESIGN BY:	M.A.S.	
CHECK BY:	C.A.S.	
APPROVED BY:	R.A.G.	
JOB NO.:	1515	

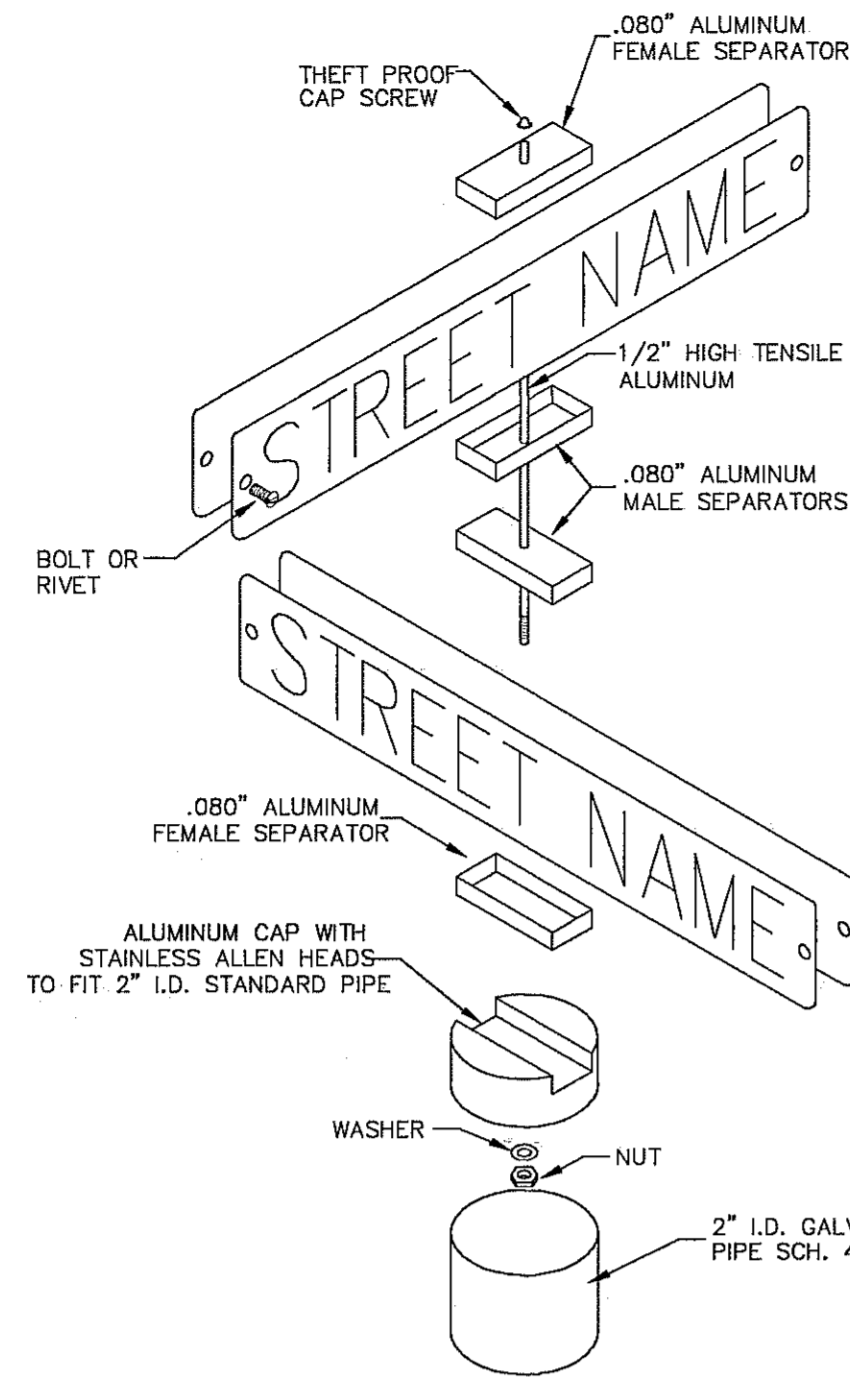
PROJECT TITLE
 FRANKLIN HILLS UNIT TEN
 SUBDIVISION
 IMPROVEMENT PLANS
 EL PASO COUNTY, TEXAS

SHEET TITLE
 DRAINAGE
 DETAILS
 (4 OF 4)

SHEET NO.
C-29
 29 OF 49 SHEETS

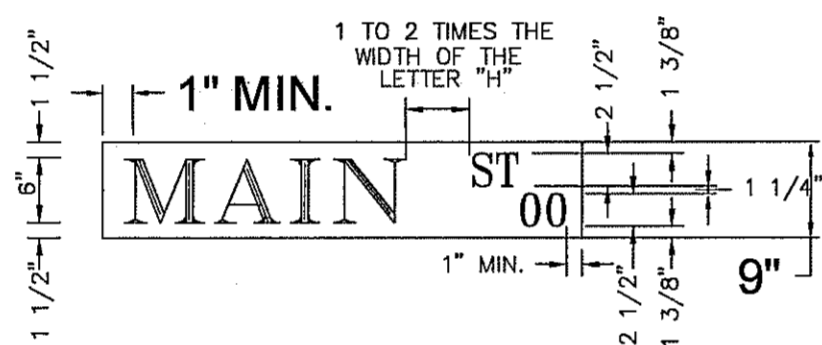
**CITY OF EL PASO
SPECIFICATION FOR REFLECTORIZED
STREET NAME SIGNS**

- COLOR OF SIGN:** THE FINISHED SIGN MUST HAVE A REFLECTORIZED GREEN BACKGROUND. THE GREEN MUST CONFORM WITH THE BUREAU OF PUBLIC ROADS HIGHWAY GREEN. THE LEGEND MUST BE REFLECTORIZED SILVER WHITE (GREEN REVERSE SCREENED BACKGROUND WITH SILVER COPY).
- LETTER DESIGN:** THE LETTERING OF ALL LEGENDS MUST BE UPPER CASE LETTERS IN ACCORDANCE WITH "STANDARD ALPHABETS FOR HIGHWAY SIGN" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
- LETTER SPACING:** THE CONTROL FOR THE SPACING VALUES IN TRAFFIC LAYOUT IS THE DISTANCE RECOGNIZED AS AESTHETIC SPACING BETWEEN TWO STRAIGHT LETTERS (HN). A SPACING CONTROL OF TWO TIMES THE WIDTH OF THE STROKE OF THE LETTER SERIES TO BE USED MUST BE THE AESTHETIC CONTROL (100%). TWO AND ONE-HALF TIMES (2-1/2) THIS CONTROL MUST BE USED AS THE AESTHETIC WORD SPACE BETWEEN ELEMENTS IN THE PRIMARY LEGEND.
- LAYOUT:** THE MAXIMUM NUMBER OF LETTERS TO BE ACCOMMODATED ON A GIVEN LENGTH STREET NAME FACE MUST BE DETERMINED BY THE WIDEST LETTER SERIES POSSIBLE FOR THAT LEGEND AND THE SPACING CONTROL (100%) FOR THE SERIES USED MUST BE EXPANDED OR CONDENSED UP TO 25% IN 5% INCREMENTS.
- THE SPACING CONTROL (100%) FOR THE SERIES USED MUST BE EXPANDED OR CONDENSED UP TO 25% IN 5% INCREMENTS FOR THE END MARGIN WITH MINIMUM OF 1".**
- THE WORD SPACE MUST BE EXPANDED UP TO 25% IN 5% INCREMENTS BUT NOT CONDENSED.**
- SPACE BETWEEN PRIMARY AND BLOCK NUMBER AREA MUST BE 1/2 THE AESTHETIC WORK SPACE USED IN THE PRIMARY LEGEND.**
- SIZE OF LEGEND:** FOR 9" STREET NAME SIGNS, THE PRIMARY LEGEND, OR STREET NAME MUST HAVE CAPITAL LETTERS SIX INCHES (6") HIGH AND ALL SECONDARY LEGENDS, INCLUDING THE SUFFIX, BLOCK NUMBERS, MUST HAVE UPPER CASE LETTERS TWO AND ONE-HALF INCHES (2 1/2") HIGH.
- SUFFIX LETTER SIZE FOR ALL LENGTH MUST BE 2 1/2" CAPITALS, C SERIES, EXCEPT THAT SERIES A OR B WHERE SUFFIX ABBREVIATION EXCEEDS TWO LETTERS, MAY BE USED.**
- POSITION OF LEGEND:** EACH SIGN FACE WILL CONSIST OF THE STREET NAME, SUFFIX AND TWO ZEROS OF THE BLOCK NUMBER. THE ADDITIONAL NUMBERS OF THE BLOCK NUMBER WILL BE APPLIED BY THE CITY OF EL PASO. THE SUFFIX WILL BE LOCATED IN THE UPPER RIGHT CORNER AND THE BLOCK NUMBER IN THE LOWER RIGHT CORNER OF THE SIGN FACE AND THE STREET NAME CENTERED IN THE REMAINING SPACE.
- SIGN FABRICATION:** THE SIGN FACE MUST BE FABRICATED BY REVERSE SCREENING GREEN TRANSPARENT COLOR OVER SILVER REFLECTIVE SHEETING. TRANSPARENT PROCESS COLORS MUST BE AS RECOMMENDED BY THE SHEETING MANUFACTURER. CUT-OUT OR APPLIED LEGENDS ARE NOT PERMITTED. SIGN FACE MUST BE COMPRISED OR ONE PIECE OR PANEL OF REFLECTIVE SHEETING.
- TYPE OF SHEETING:** ENGINEER GRADE REFLECTIVE SHEETING MUST BE USED IN THE FABRICATION OF THE STREET NAME SIGN FACES.



SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE AND SERIES
9"	36"	6" C, D, SERIES	3" C SERIES
ARTERIAL	42"	6" C, D, SERIES	3" C SERIES
STREETS	48"	6" A, B, C, D, SERIES	3" C SERIES

LAYOUT FOR 9" STREET NAME SIGN
SCALE: N.T.S.



SPECIFICATIONS FOR ALUMINUM SIGN BLANKS

THESE SPECIFICATIONS DESCRIBE DETAILS AND MINIMUM REQUIREMENTS FOR ALUMINUM SIGN BLANKS, TO WHICH REFLECTIVE SHEETING WILL BE

- ALL MATERIALS SHALL BE NEW AND UNWEATHERED AND SHALL BE OF DOMESTIC ORIGIN, MILLED, ROLLED AND FINISHED IN DOMESTIC MILLS.
- SIGN BLANKS SHALL BE .080 GAUGE ALUMINUM, 5052-H38 ALLOY, FREE OF BURRS, CORROSION, WHITE RUST AND DIRT, SUITABLE FOR APPLICATION OF REFLECTIVE SHEETING APPLIED, WITHOUT FURTHER PREPARATION.
- EDGES OF BLANKS SHALL BE CUT TRUE AND SQUARE, CORNER RADI, HOLE DIAMETERS AND HOLE LOCATIONS SHALL BE AS DESCRIBED IN THE ALUMINUM SIGN BLANK BID D.H.T. STANDARD.
- ALL SIGN BLANKS WILL BE TREATED AS FOLLOWS:

A. DEGREASING

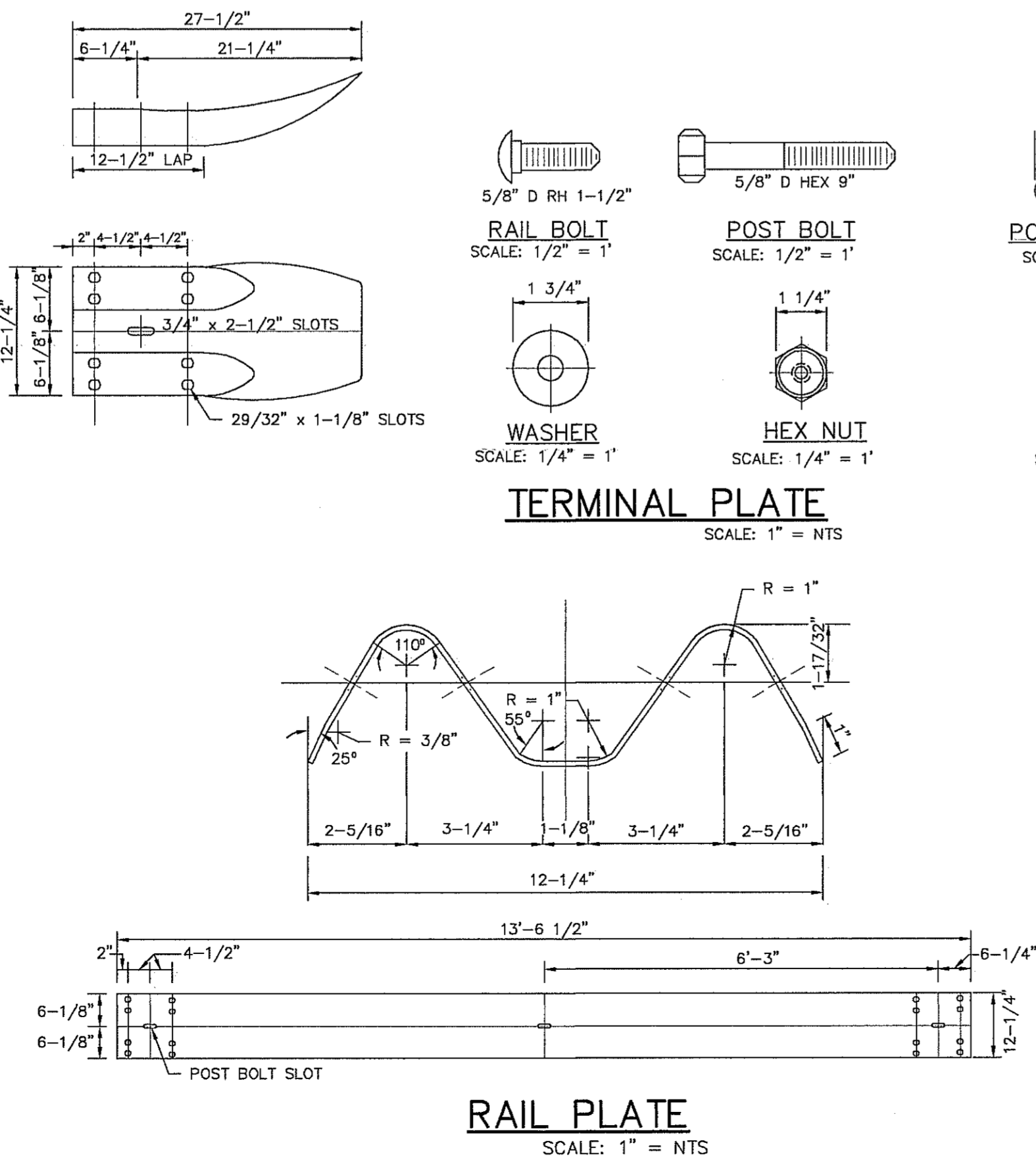
- VAPOR DEGREASING** - BY TOTAL IMMERSION OF SIGN BLANK IN A SATURATED VAPOR OF TRICHLOROETHYLENE OR PERCHLOROETHYLENE. TRADEMARK PRINTING SHALL BE REMOVE WITH LAQUER THINNER BEFORE DEGREASING.
- ALKALINE DEGREASING** - BY TOTAL IMMERSION OF THE SIGN BLANK IN A TANK CONTAINING ALKALINE SOLUTIONS, CONTROLLED AND TRITURATED TO THE SOLUTION MANUFACTURER'S SPECIFICATION FOR TIME, TEMPERATURE AND CONCENTRATION. IMMERSION TIME SHALL DEPEND UPON THE AMOUNT OF SOIL PRESENT, GAUGE OF THE METAL AND SOLUTION STRENGTH, RINSE THOROUGHLY WITH RUNNING WATER.

B. ETCHING

- ACID ETCH** - ETCH WELL IN 6-8% PHOSPHORIC ACID SOLUTION AT 100 DEGREES F OF PROPRIETARY ACID ETCHING SOLUTION. RINSE THOROUGHLY WITH RUNNING WATER.
- ALKALINE ETCH** - ETCH WELL THE PRE-CLEANED ALUMINUM SURFACE IN AN ALKALINE ETCHING MATERIAL THAT IS CONTROLLED BY TITRATION. USE TIME, TEMPERATURE, AND CONCENTRATION SPECIFIED BY THE SOLUTION MANUFACTURER. RINSE THOROUGHLY. REMOVE SMUT WITH AN ACIDIC CHROMIUM COMPOUND-TYPE SOLUTION AS SPECIFIED BY THE SOLUTION MANUFACTURER AND THEN RINSE THOROUGHLY.

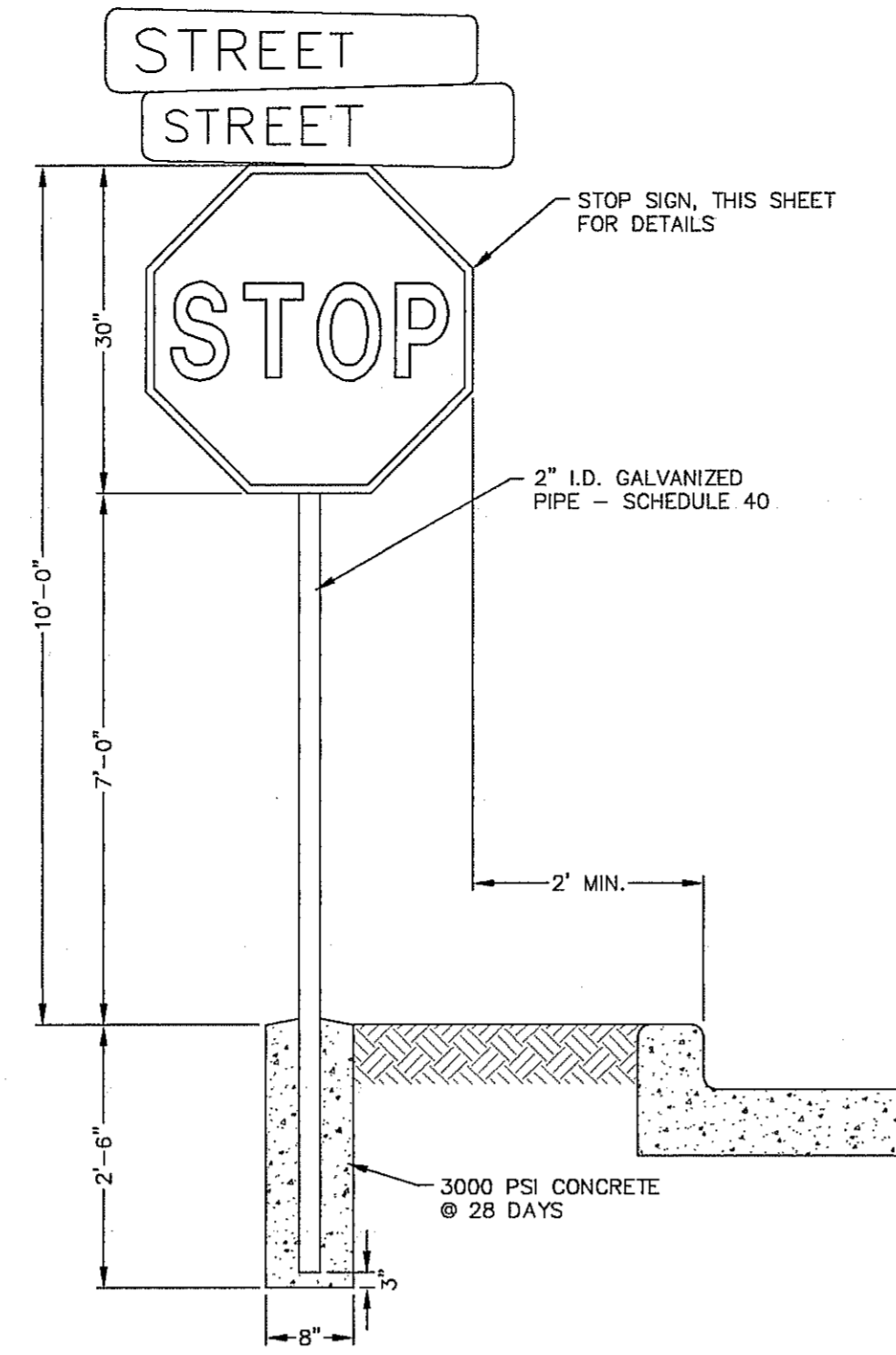
C. CHROMATE CONVERSION COATING

COAT THE ALUMINUM BLANKS ACCORDING TO THE CHROMATE CONVERSION COATING MANUFACTURER'S INSTRUCTIONS. THE COATING SHALL CONFORM TO ASTM-B448067, CLASS 2, AND SHALL RANGE IN COLOR FROM SILVERY IRIDESCENT TO PALE YELLOW. THE COATING WEIGHT SHALL BE 10 TO 35 MG PER SQ. FT. WITH A MEDIAN OF 25 MG PER SQ. FT. AS THE OPTIMUM COATING WEIGHT.

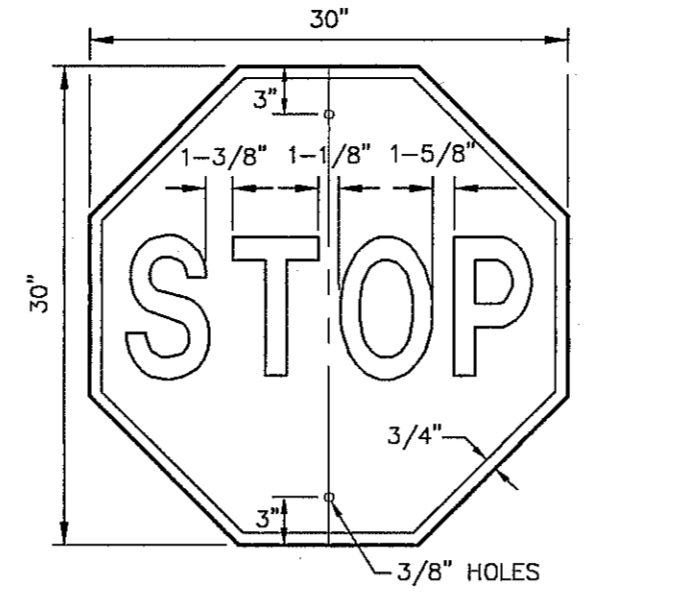


TERMINAL PLATE
SCALE: 1" = NTS

RAIL PLATE
SCALE: 1" = NTS

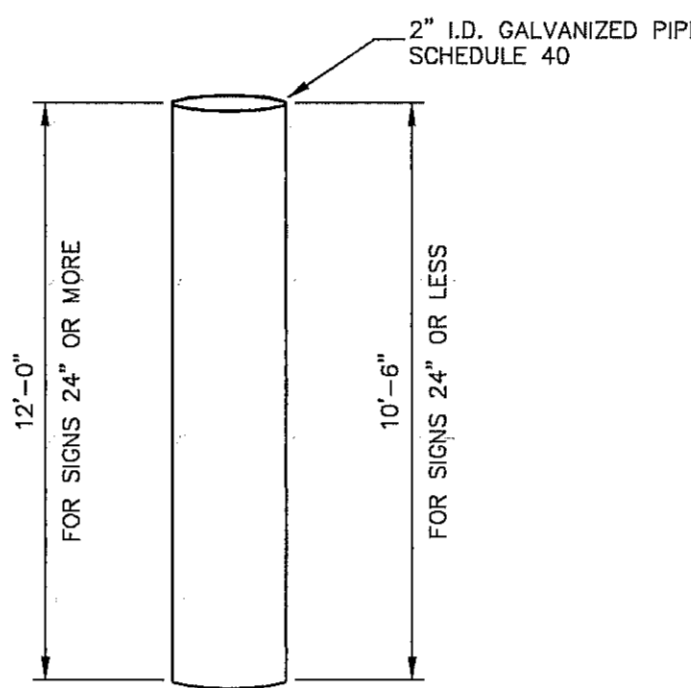


SIGN POST INSTALLATION
SCALE: N.T.S.



LETTERS - WHITE REFLECTIVE
BORDER - WHITE REFLECTIVE
BACKGROUND - RED REFLECTIVE
(REFER TO STREET DEPARTMENT SIGN SPECIFICATIONS)

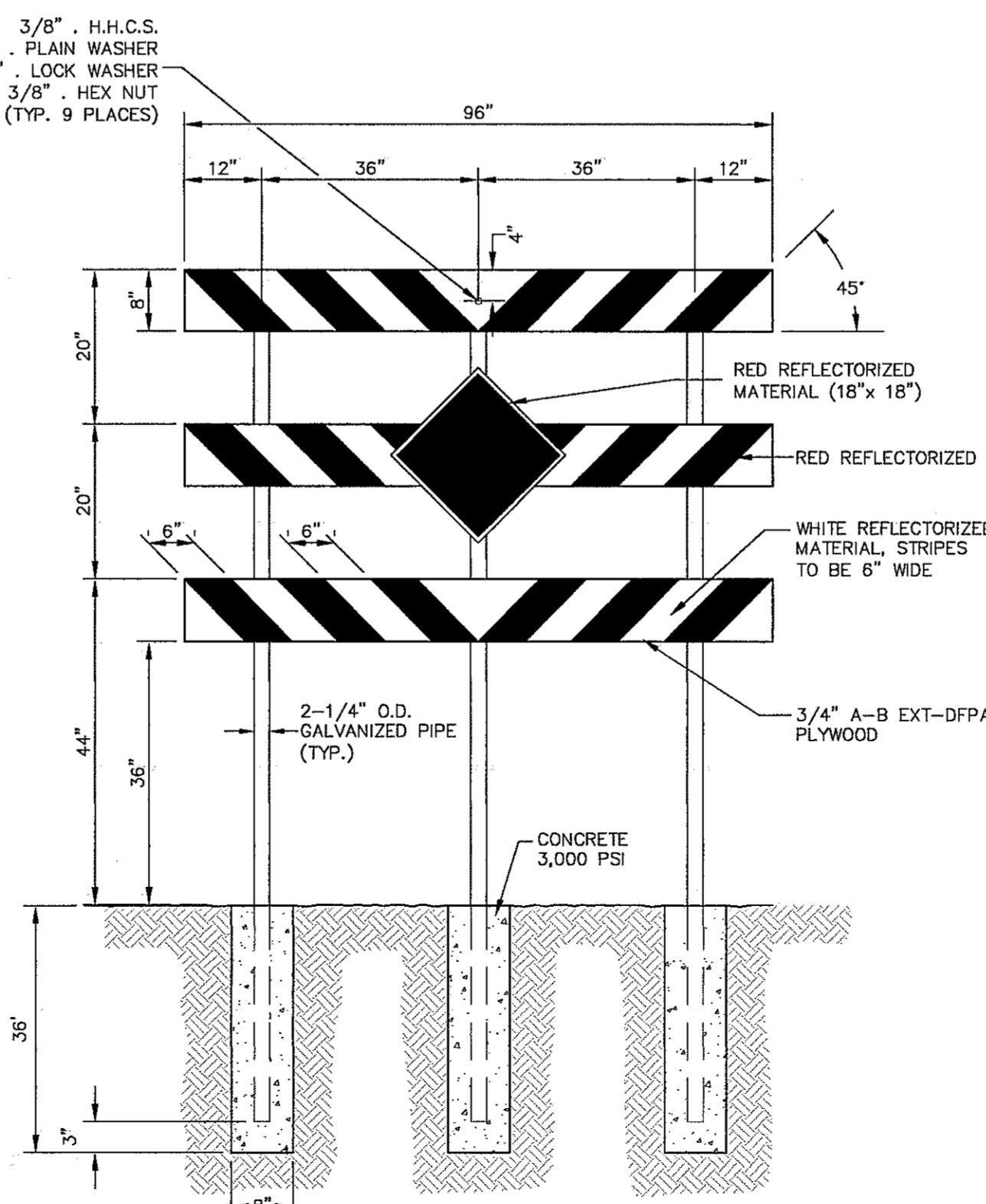
STOP SIGN DETAIL
SCALE: 1" = 5"



NOTES:

- WELD ALONG ITS LENGTH TO FORM VIRTUALLY SEAMLESS.
- POST SHALL BE HOT-DIPPED ZINC GALVANIZED UNIFORMLY ON THE OUTSIDE WITH A NOMINAL ZINC WEIGHT OF 1.0 OUNCE PER SQUARE FOOT.
- THE ZINC COATING IS TO BE OVER-COATED WITH A CHROMITE CONVERSION AND ACRYLIC COATING TO PROVIDE RESISTANCE TO RUSTING AND CORROSION.
- THE INSIDE OF THE POST SHALL BE COATED WITH AN ORGANIC MATERIAL FOR PROTECTION AGAINST RUST.
- BOTH ENDS ARE TO BE SQUARELY CUT WITHOUT FLARE.
- POST SHALL BE FREE OF WARPS, CORROSION, OR OTHER DEFECTS.
- RING WELDS OR SPLICES WILL NOT BE ACCEPTABLE.
- BENDING STRENGTH AS SPECIFIED BY AASHTO FOR SCHEDULE 40 PIPE.
- POST SHALL BE BUNDLE WITH METAL STRAPS AND SHALL NOT EXCEED 37 POST PER BUNDLE.

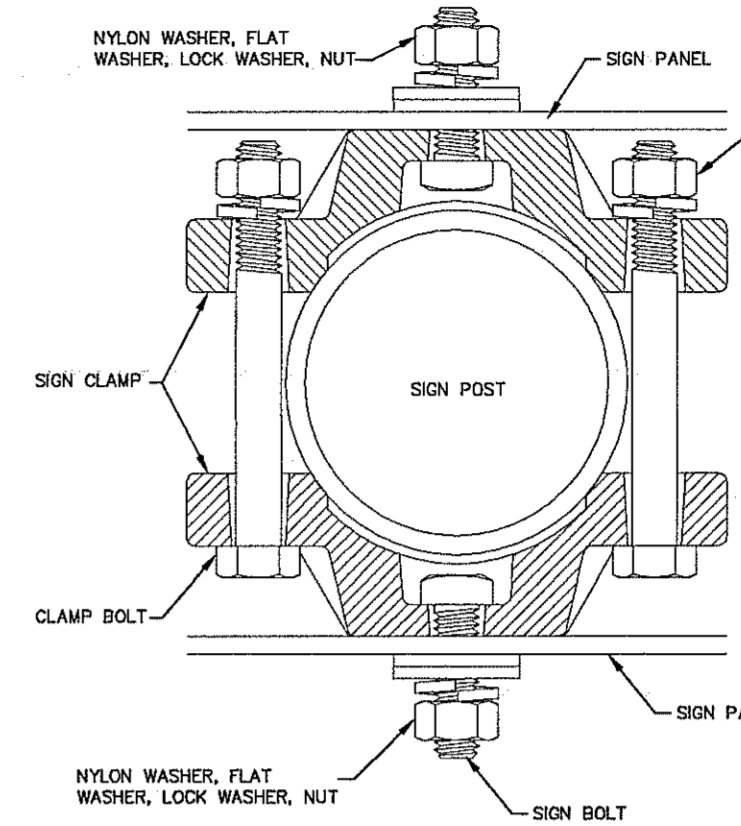
SIGN POSTS SPECIFICATIONS
SCALE: N.T.S.



NOTE:
ALL STEEL FITTINGS SHALL BE GALVANIZED.

GUARDRAIL/ SIGN ASSEMBLY/ AT DEAD END STREET DETAIL
SCALE: N.T.S.

NOTES:
DETAILS SHOWN ON THIS SHEET ARE FOR REFERENCE PURPOSES ONLY. REFER TO CURRENT CITY OF EL PASO SUBDIVISION IMPROVEMENT DESIGN STANDARDS FOR MORE ADDITIONAL SPECIFICATIONS.



PIPE DIAMETER	APPROXIMATE BOLT LENGTH	
	SPECIFIC CLAMP	UNIVERSAL CLAMP
2" NOMINAL	3"	3 OR 3 1/2"

CLAMP NOTES:

- USE A 5/16-18 UNC GALVANIZED HEX HEAD PER ASTM A307 WITH NUT AND HELICAL-SPRING LOCK WASHER WHEN TWO SIGN CLAMPS ARE USED TO MOUNT SIGNS BACK-TO-BACK. THE APPROXIMATE BOLT LENGTHS FOR VARIOUS POST SIZES AND SIGN CLAMP TYPES ARE GIVEN IN THE TABLE AT RIGHT. THE BOLT LENGTH MAY NEED TO BE ADJUSTED DEPENDING UPON FIELD CONDITIONS.
- SIGN CLAMPS MAY BE EITHER THE SPECIFIC SIZE CLAMP OR THE UNIVERSAL CLAMP.

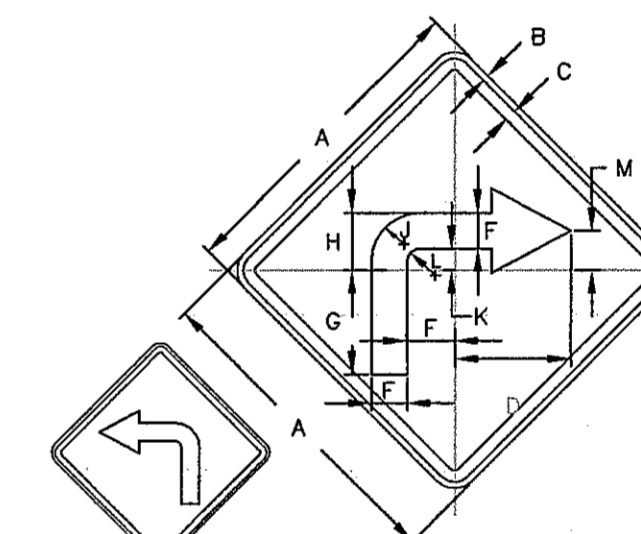
TYPICAL SIGN ATTACHMENT DETAIL
SCALE: N.T.S.



W14-1PR(L)

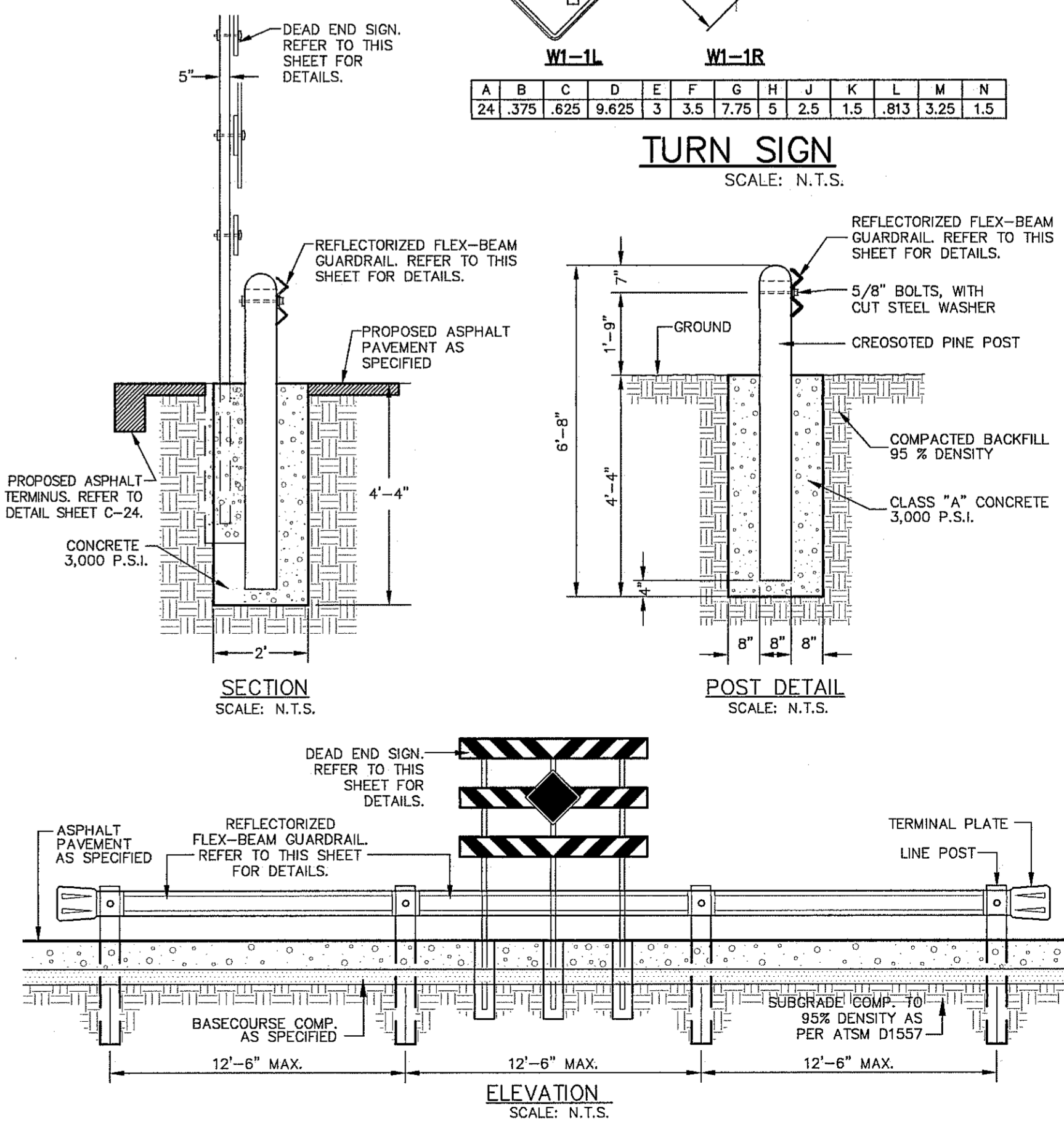
(AS PER THE STANDARD HIGHWAY SIGNS MANUAL AND THE MANUAL ON UNIFORMED TRAFFIC CONTROL DEVICES)

NO OUTLET SIGN
SCALE: N.T.S.



TURN SIGN
SCALE: N.T.S.

A	B	C	D	E	F	G	H	J	K	L	M	N
24	.375	.625	0.825	3	3.5	7.75	5	2.5	1.5	.813	3.25	1.5



ELEVATION
SCALE: N.T.S.

REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET.
ELEVATION = 4382.20 (CITY DATA)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

414 Executive Center Blvd
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P 915.532.7372
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QUANTUM
engineering
INCORPORATED
Texas Registered Engineering Firm F-005146



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SCALE:

HORIZONTAL: 1" = 100'
VERTICAL: 1" = 10'
CONTOUR INTERVAL: 10'

DATE: OCTOBER-2016
DESIGN BY: M.A.G.
DRAWN BY: CADD
CHKD BY: R.A.G.
APPVD BY: R.A.G.
JOB NO.: 1515

**FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS**

SHEET TITLE

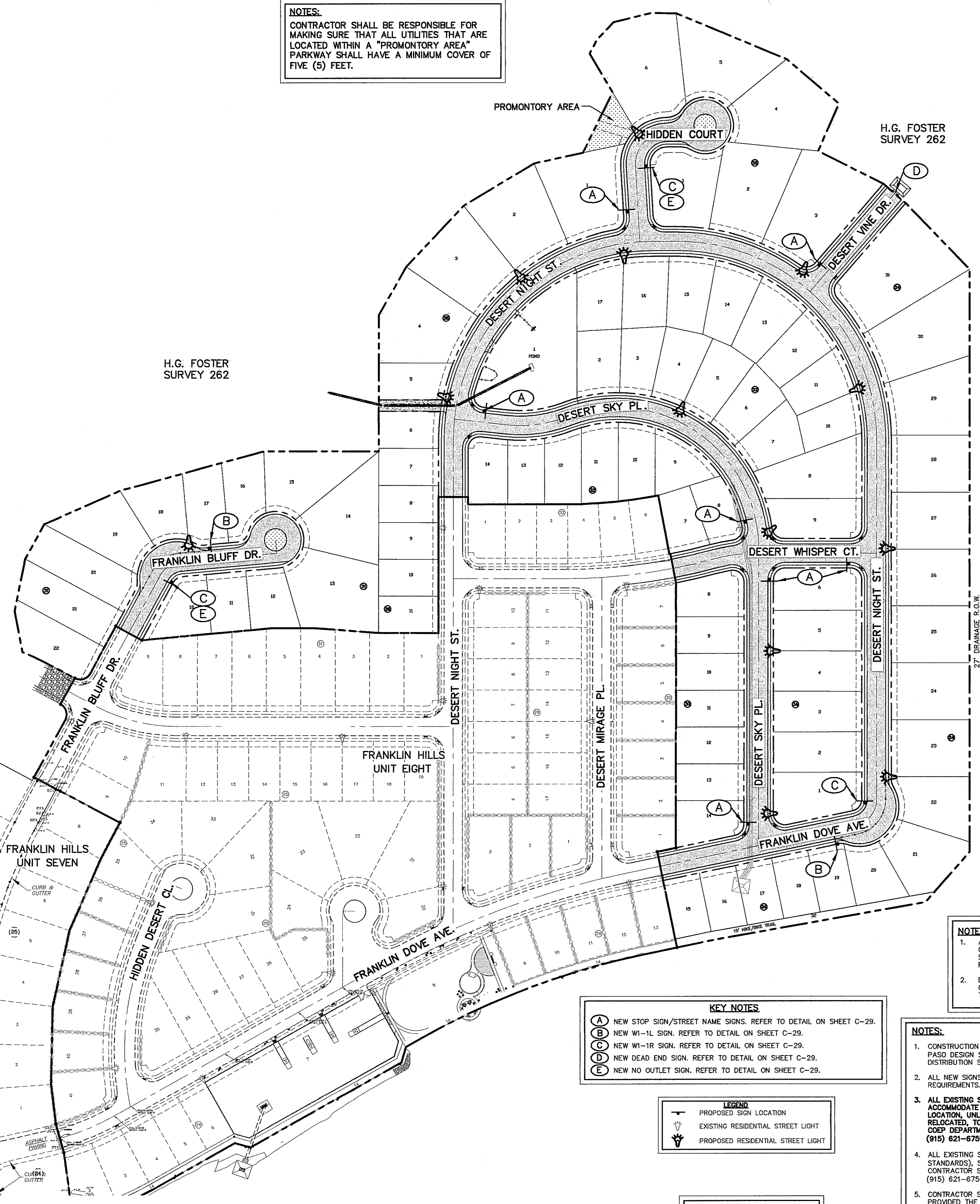
**TYPICAL SIGN
DETAILS**

SHEET NO.

C-30

30 OF 49 SHEETS

NOTES:
 CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL UTILITIES THAT ARE LOCATED WITHIN A "PROMONTORY AREA" PARKWAY SHALL HAVE A MINIMUM COVER OF FIVE (5) FEET.



H.G. FOSTER SURVEY 262

H.G. FOSTER SURVEY 262

3645.07'

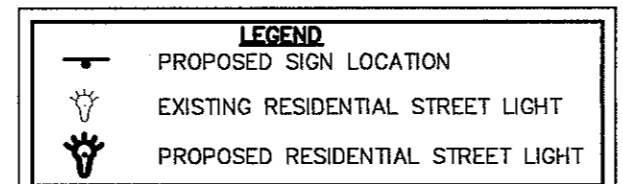
FRANKLIN MOUNTAINS STATE PARK

27' DRAINAGE R.O.W.

ILLUMINATION AND SIGNAGE PLAN
 SCALE: 1" = 100'



- KEY NOTES**
- (A) NEW STOP SIGN/STREET NAME SIGNS. REFER TO DETAIL ON SHEET C-29.
 - (B) NEW W1-1L SIGN. REFER TO DETAIL ON SHEET C-29.
 - (C) NEW W1-1R SIGN. REFER TO DETAIL ON SHEET C-29.
 - (D) NEW DEAD END SIGN. REFER TO DETAIL ON SHEET C-29.
 - (E) NEW NO OUTLET SIGN. REFER TO DETAIL ON SHEET C-29.



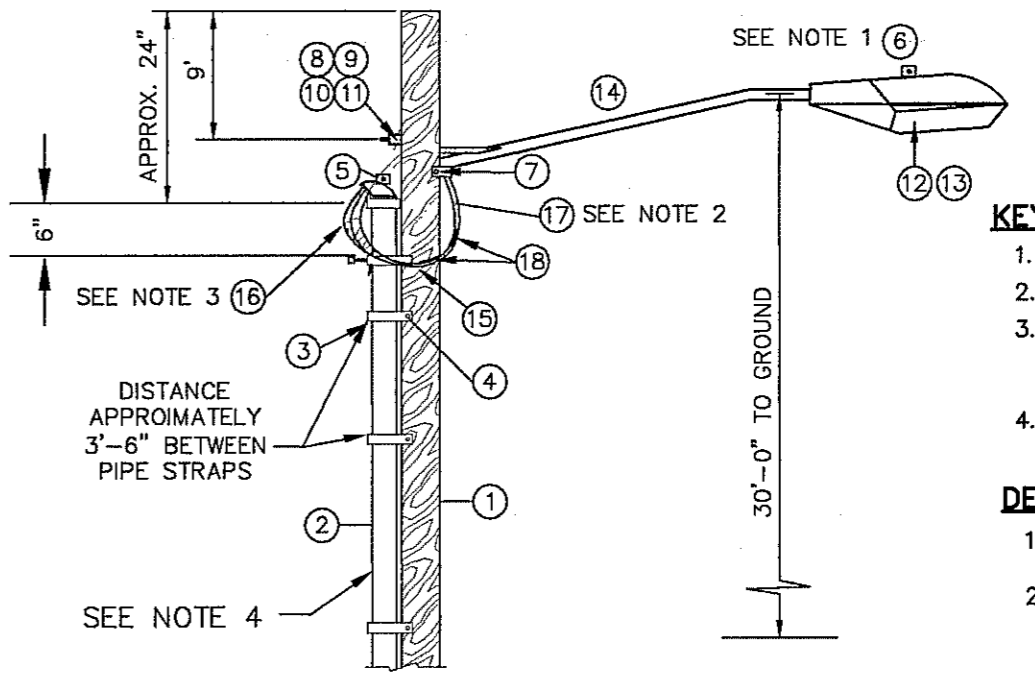
NOTES:
 ALL ROADWAYS INTERSECTING EXISTING PUBLIC ROADWAYS SHALL REMAIN COMPLETELY CLOSED FOR PUBLIC USE UNTIL ACCEPTED FOR MAINTENANCE BY THE CITY.

ITEM NO.	DESCRIPTION	STOCK/ DSO NO.	QTY. PER LIGHT
1	POLE, 35 FT.-CLASS IV	009-035	1
2	SCHEDULE 80 1" PVC CONDUIT	017-280	30'
3	PIPE STRAP FOR 1" CONDUIT, 2-HOLE	017-283	9
4	NAIL, STAINLESS STEEL SCREW 2.5"	014-427	25
5	SERVICE ENTRANCE CAP FOR 1" PVC CONDUIT.	017-281	1
6	PHOTOCELL, 240V-SEE NOTE 1	021-225	1
7	LAG BOLT, 3/8" X 3"	002-343	2
8	MACHINE BOLT, 5/8" X 12"	002-470	1
9	SQUARE GALV. WASHER, 2 1/4" X 2 1/4"	002-780	1
10	COIL-SPRING WASHER, 5/8"	002-786	1
11	LOCK NUT, 5/8"	002-705	1
12	LUMINAIRE, 100W H.P.S.	021-335	1
13	HPS LAMP, 100W	021-085	1
14	MAST ARM, 6" X 1 1/4"	021-200	1
15	COPPER CABLE, #12, SOLID, 600V, BLUE	013-702	60'
16	CABLE, #10, 2 CONDUCTOR, 600V, UF	013-600	8'
17	SLEEVES, #12-10	005-140	2
18	1" PVC CONDUIT	017-299	AS REQUIRED
19	1" PVC 90° ELBOW	017-297	1
20	1" PVC 45° ELBOW	017-298	1
21	1" PVC COUPLING	017-296	1

NOTES:
 1. FOR STREET NAME SIGNAGE DETAILS. SEE SHEET C-29.
 2. FOR STOP SIGNAGE DETAILS. SEE SHEET C-29.

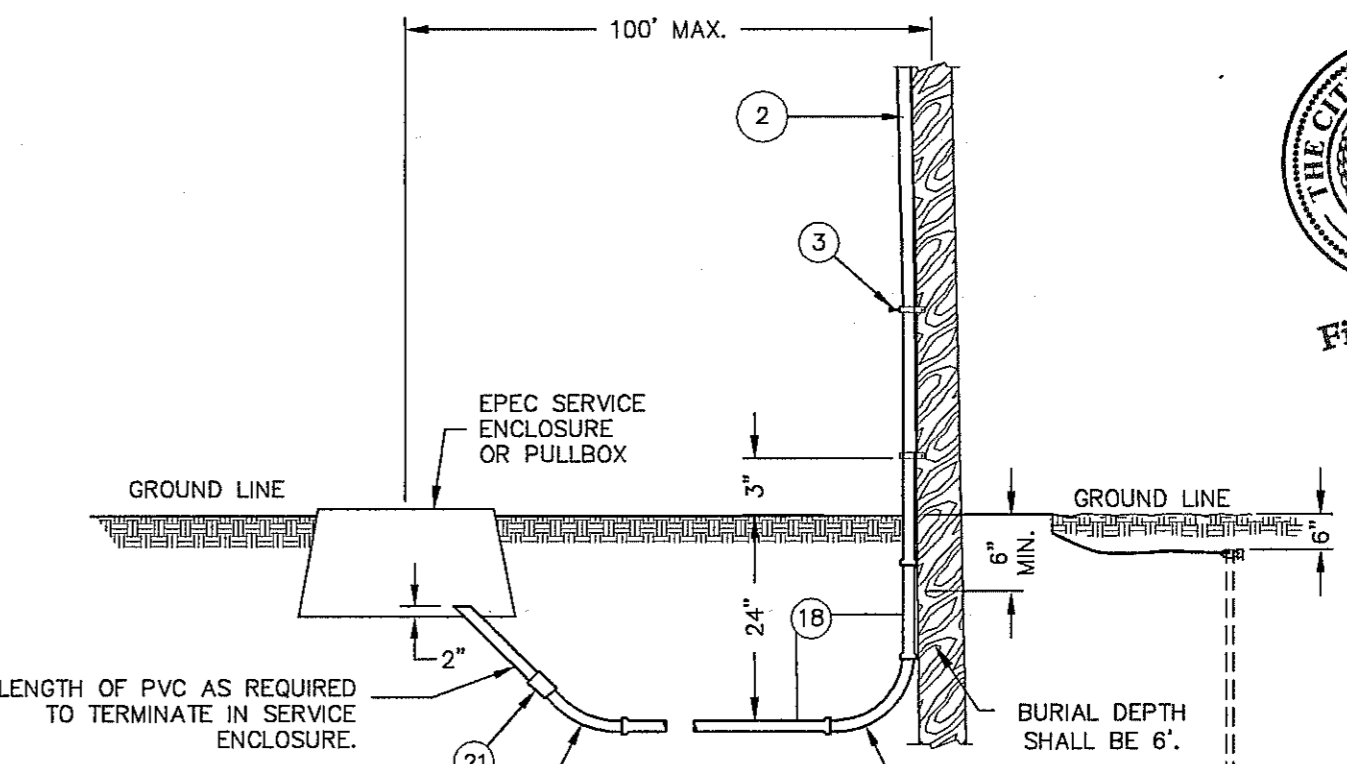
NOTES:
 ALL ROADWAYS INTERSECTING EXISTING PUBLIC ROADWAYS SHALL REMAIN COMPLETELY CLOSED FOR PUBLIC USE UNTIL ACCEPTED FOR MAINTENANCE BY THE CITY.

NOTES:
 1. ALL STREET LIGHTS SHALL BE LOCATED WITHIN THE PARKWAY, A MINIMUM OF 24" AWAY FROM BACK OF CURB.
 2. DETAILS SHOWN ON THIS SHEET ARE FOR REFERENCE PURPOSES ONLY. CONSTRUCTION FOR ALL LIGHTING AND APPURTENANCES SHALL ADHERE TO CURRENT CITY OF EL PASO SUBDIVISION IMPROVEMENT DESIGN STANDARDS.



- KEYED NOTES**
- MOUNT SO THAT PHOTO CELL IS FACING NORTH.
 - ITEM 17 SHALL NOT BE SPICED INSIDE ITEM 14.
 - THE WIRE LEADS FROM THE WEATHER HEAD TO THE MAST ARM SHALL HAVE A MINIMUM 4" DRIP LOOP BELOW THE WEATHER HEAD.
 - THE CONDUIT RISER SHALL BE INSTALLED ON THE BACK OF THE WOOD (AWAY FROM THE STREET)
- DESIGN NOTES**
- INSTALLATION MUST COMPLY WITH ALL LOCAL CODE REQUIREMENTS.
 - FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.

STREET LIGHT WOOD POLE DETAIL
 SCALE: N.T.S.



WOOD POLE RISER DETAIL
 SCALE: N.T.S.

NOTES:
 1. ALL STREET LIGHTS SHALL BE LOCATED WITHIN THE PARKWAY, CONTRACTOR SHALL COORDINATE WITH EPDOT PRIOR TO RELOCATION OF SIGNS. EPDOT SHALL BE PROVIDED THE OPPORTUNITY TO INSPECT AND REPLACE ANY EXISTING DETERIORATING SIGN PRIOR TO INSTALLATION.
 2. DETAILS SHOWN ON THIS SHEET ARE FOR REFERENCE PURPOSES ONLY. CONSTRUCTION FOR ALL LIGHTING AND APPURTENANCES SHALL ADHERE TO CURRENT CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION.

NOTES:
 1. CONSTRUCTION FOR ALL LIGHTING AND APPURTENANCES SHALL ADHERE TO CURRENT CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION AND/OR THE EL PASO ELECTRIC COMPANY DISTRIBUTION STANDARDS.
 2. ALL NEW SIGNS SHALL COMPLY TO CURRENT CITY OF EL PASO SPECIFICATIONS AND REQUIREMENTS.
 3. ALL EXISTING SIGNAGE LOCATED WITHIN THE PROJECT LIMITS SHALL BE REMOVED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS AND RELOCATED IN ITS APPROXIMATE ORIGINAL LOCATION, UNLESS OTHERWISE SHOWN ON PLANS. EXISTING SIGN POSTS TO BE UPGRADED, WHEN RELOCATED, TO MEET APPROVED SUP BASE TYPE POSTS. CONTRACTOR SHALL COORDINATE WITH COEP DEPARTMENT OF TRANSPORTATION (915) 621-6750
 4. ALL EXISTING STREET NAME BLADE ASSEMBLIES (NOT CONFORMING TO CURRENT CITY OF EL PASO STANDARDS), SHALL BE UPGRADED TO CURRENT CITY OF EL PASO (COEP) STANDARDS. CONTRACTOR SHALL COORDINATE WITH COEP DEPARTMENT OF TRANSPORTATION (915) 621-6750
 5. CONTRACTOR SHALL COORDINATE WITH EPDOT PRIOR TO RELOCATION OF SIGNS. EPDOT SHALL BE PROVIDED THE OPPORTUNITY TO INSPECT AND REPLACE ANY EXISTING DETERIORATING SIGN PRIOR TO INSTALLATION.
 6. CONTRACTOR SHALL VERIFY NEW AND RELOCATED UTILITIES AND SIGNS TO BE INSTALLED IN A LOCATION TO PROVIDE A MINIMUM 3' WIDE ADA ACCESSIBLE PATH ALONG SIDEWALK ROUTES.
 7. CONTRACTOR TO COORDINATE WITH OWNER ON THE PROPOSED LOCATIONS OF NEW STREET LIGHTS AND RELOCATION OF EXISTING STREET LIGHTS BEFORE PROPOSED SIDEWALKS ARE INSTALLED.

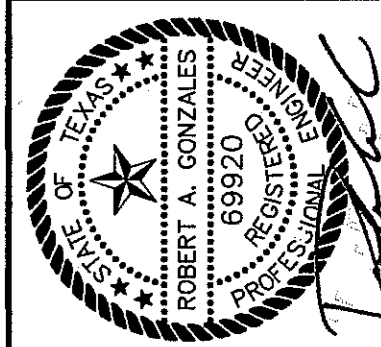
REFERENCES - BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4362.20 (CITY DATUM) CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

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 F 915.532.7373

QUANTUM
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 Texas Registered Engineering Firm F-005146



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SCALE: 1" = 100'
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 100'
CONTOUR INTERVAL: N/A
DATE: OCTOBER-2018
DESIGN BY: M.A.G.
DRAWN BY: CADD
CHKD BY: R.A.G.
APPVD BY: R.A.G.
JOB NO.: 1515

FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
 EL PASO COUNTY, TEXAS

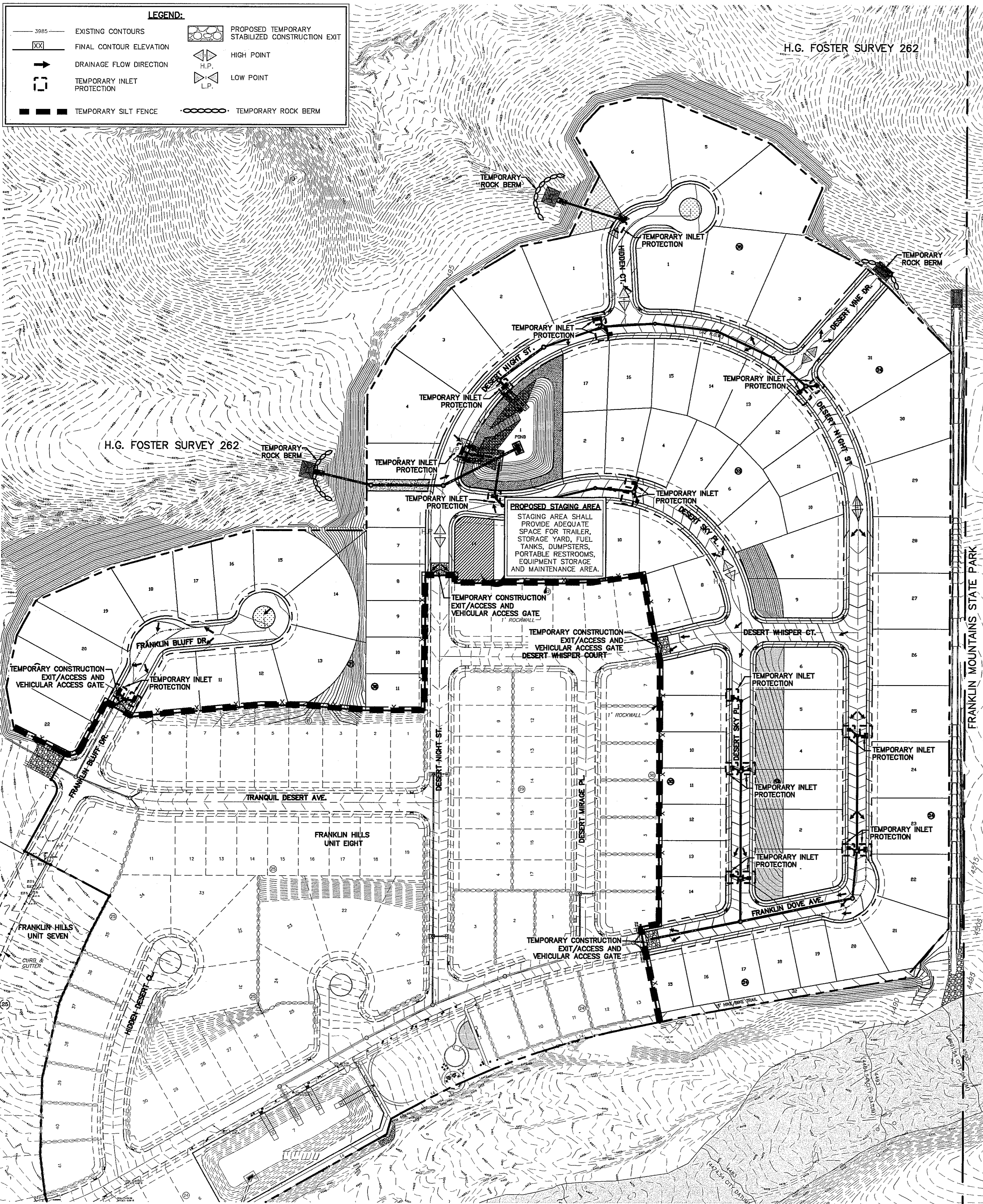
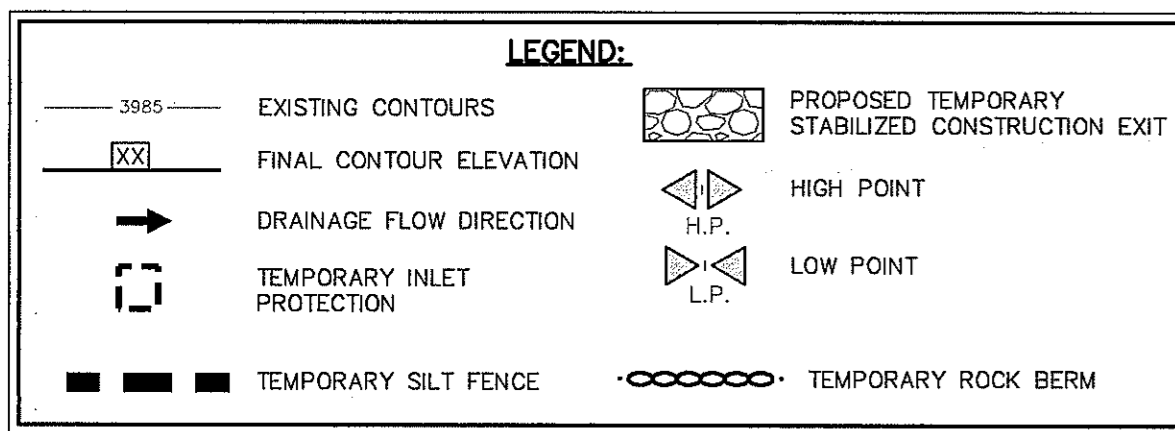
SHEET TITLE

ILLUMINATION AND SIGNAGE PLAN

SHEET NO.

C-31

31 OF 49 SHEETS

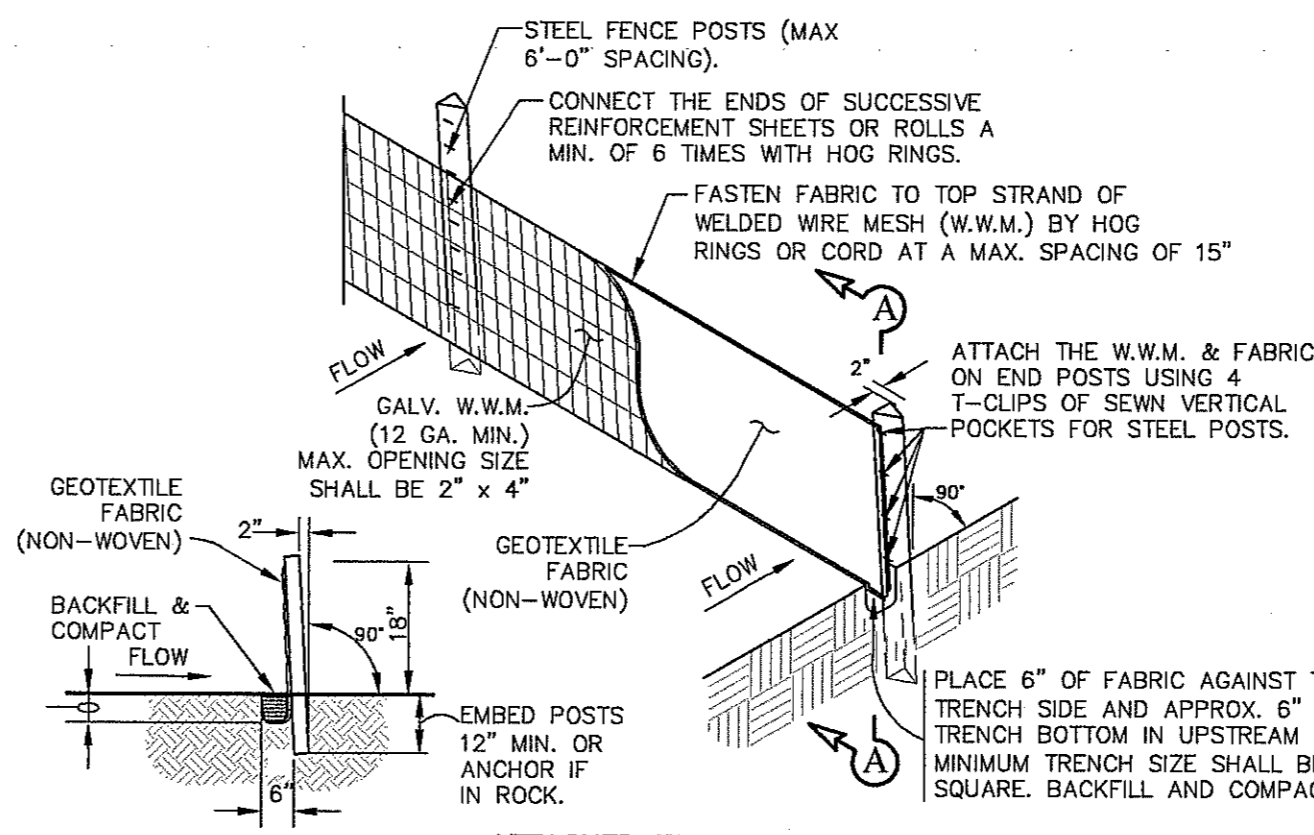


H.G. FOSTER SURVEY 262

H.G. FOSTER SURVEY 262

STORMWATER POLLUTION PREVENTION PLAN

SCALE: 1" = 100'

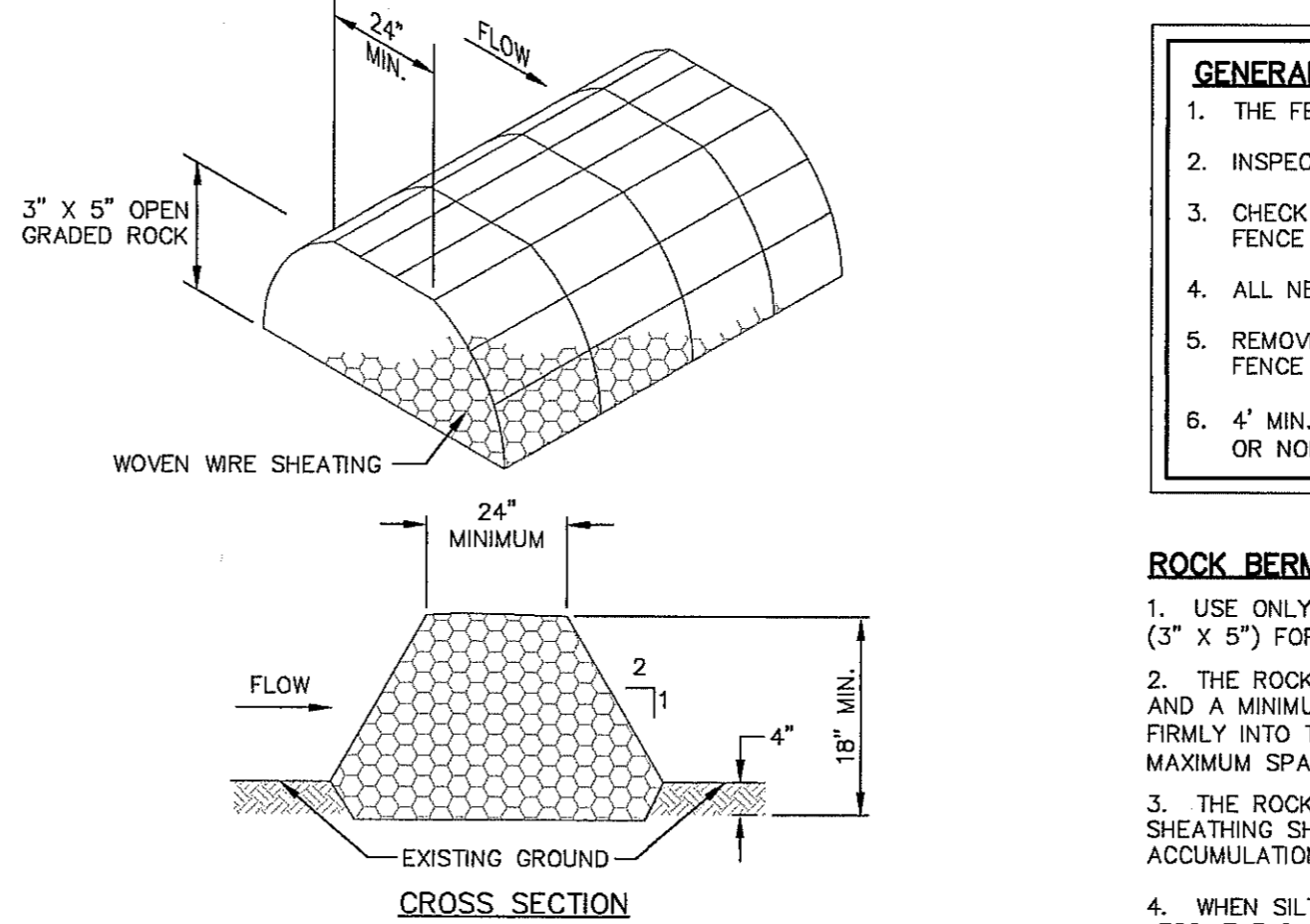


TEMPORARY SILT FENCE
SCALE: N.T.S.

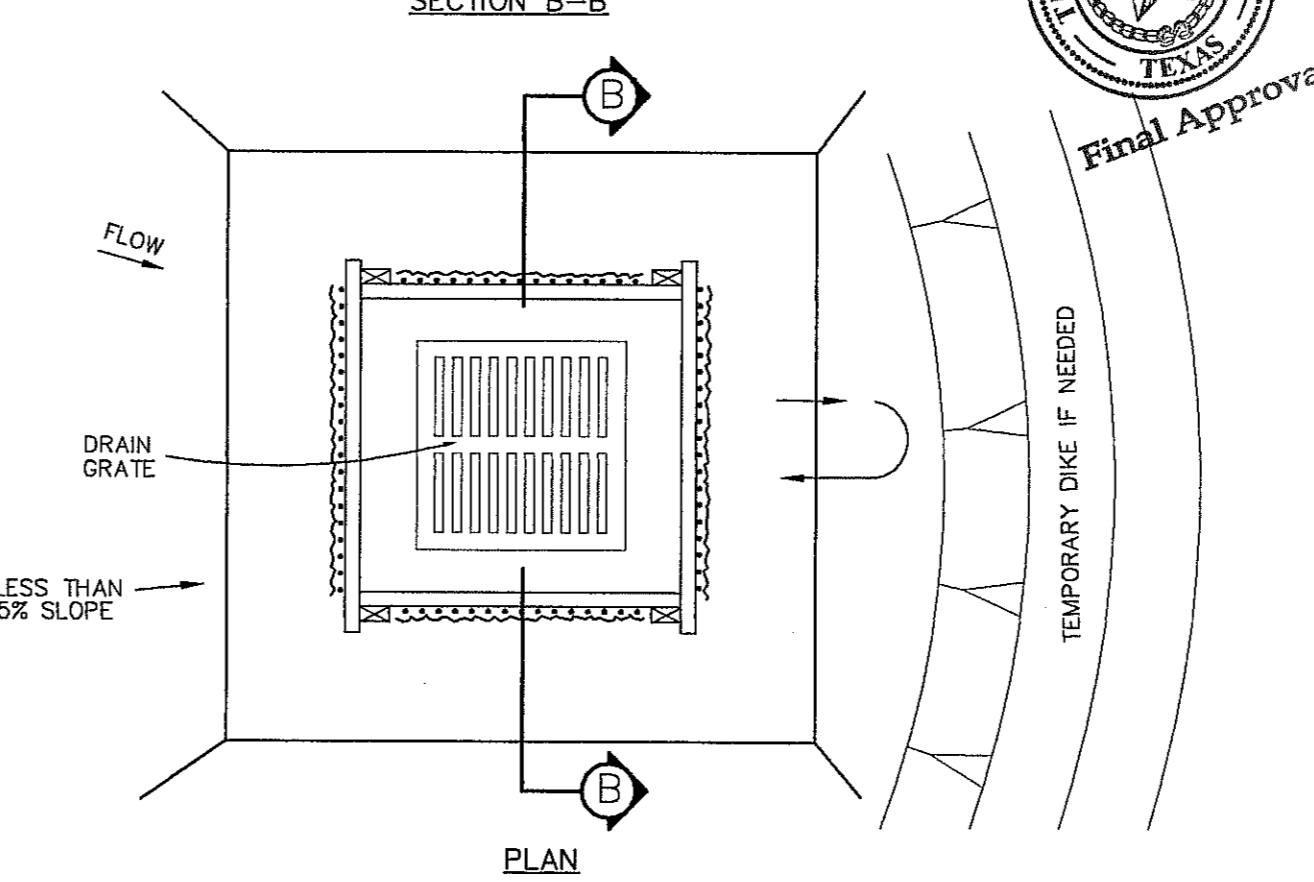
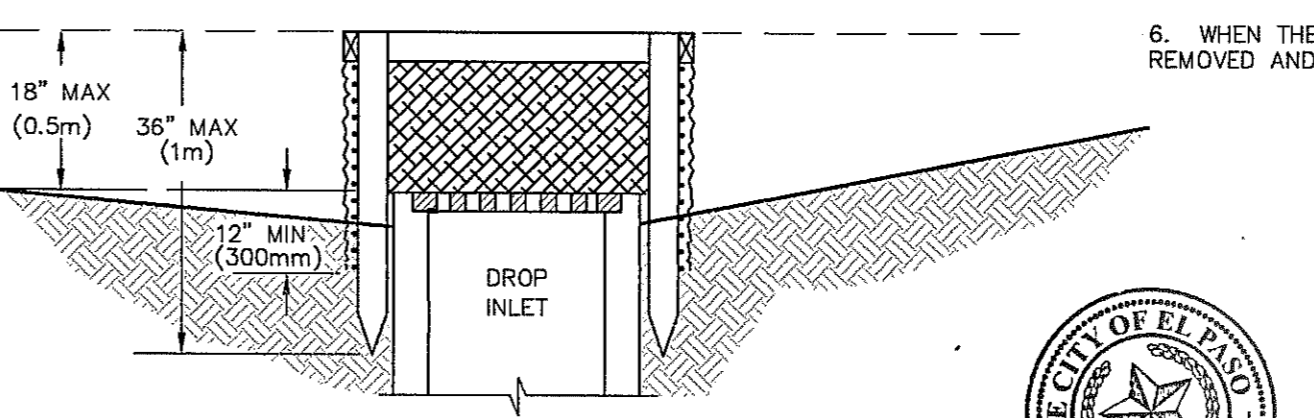
- SEDIMENT CONTROL FENCE NOTES:**
1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 12".
 2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF THE FLOW. WHERE FENCE CAN NOT BE TRENCHED INTO THE SURFACE (E.G. PAVEMENT) THE FABRIC SHALL BE WEIGHTED DOWN WITH ROCK OR 1" X 4" LUMBER SECURELY FASTENED TO THE SURFACE, ON THE UPSTREAM SIDE TO PREVENT FLOW UNDER THE FENCE.
 3. THE TRENCH MUST BE A MINIMUM OF 6" DEEP AND 6" WIDE TO ALLOW FOR THE NON-WOVEN FILTER FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
 4. THE NON-WOVEN FILTER FABRIC SHALL BE SECURELY FASTENED TO THE WOVEN WIRE BACKING, WHICH IN TURN IS SECURELY FASTENED TO THE STEEL FENCE POST.
 5. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6". THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTRATION.
 6. INSPECTION SHALL BE MADE WEEKLY AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY, IF NEEDED.
 7. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED.

TEMPORARY ROCK BERM DETAIL

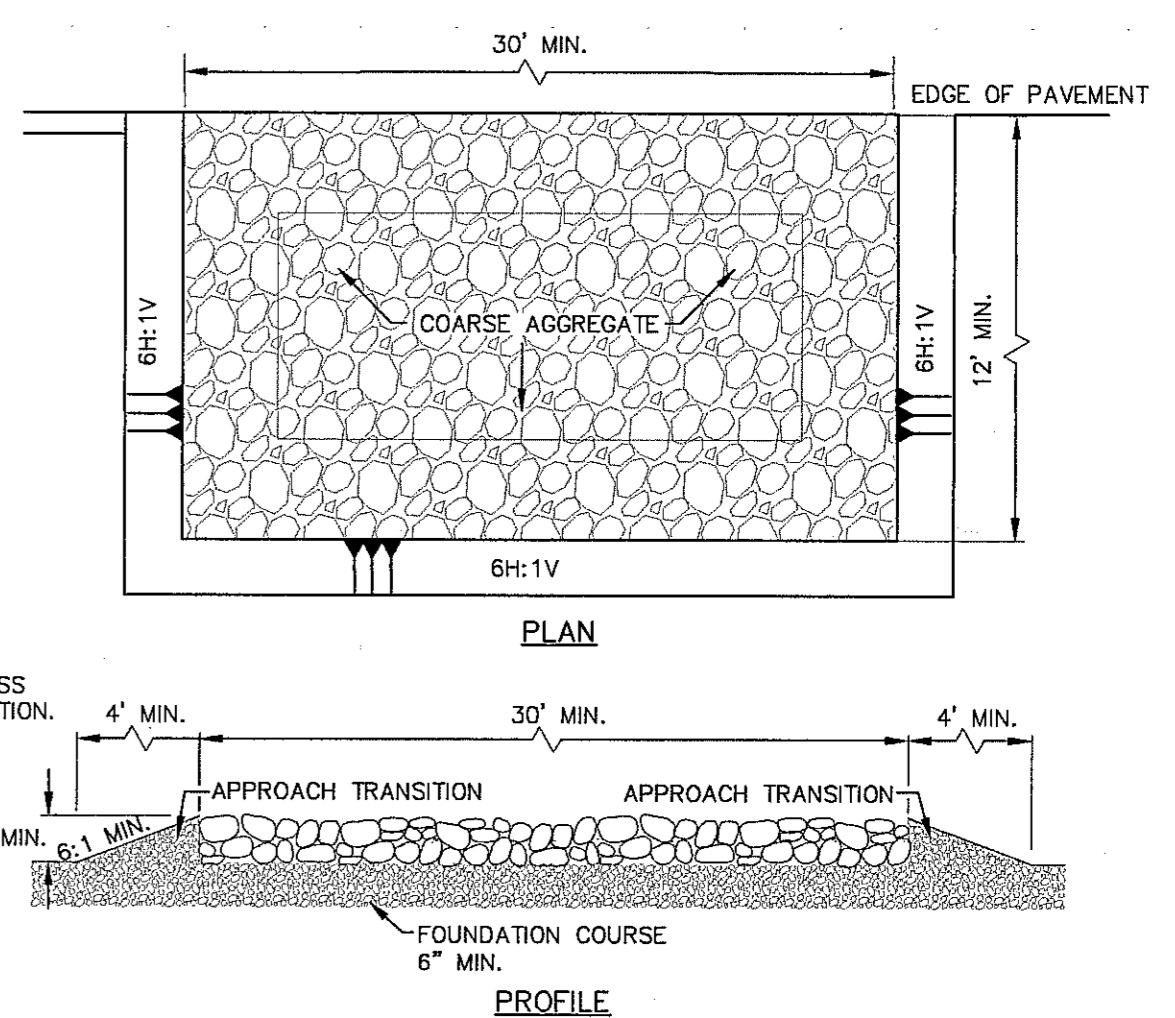
- SEDIMENT CONTROL FENCE USAGE GUIDELINES**
- A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 0.22 CFS/FT. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES. SILT FENCING AT RIGHT-OF-WAY SHALL BE PLACED SO AS NOT TO BLOCK ANY EXISTING DRIVEWAYS.



TEMPORARY ROCK BERM DETAIL
SCALE: N.T.S.



TEMPORARY INLET PROTECTION
SCALE: N.T.S.



TEMPORARY CONSTRUCTION EXIT (TYPE I)
SCALE: N.T.S.

- GENERAL NOTES:**
1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 30'.
 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 HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

TEMPORARY CONSTRUCTION EXIT (TYPE I)

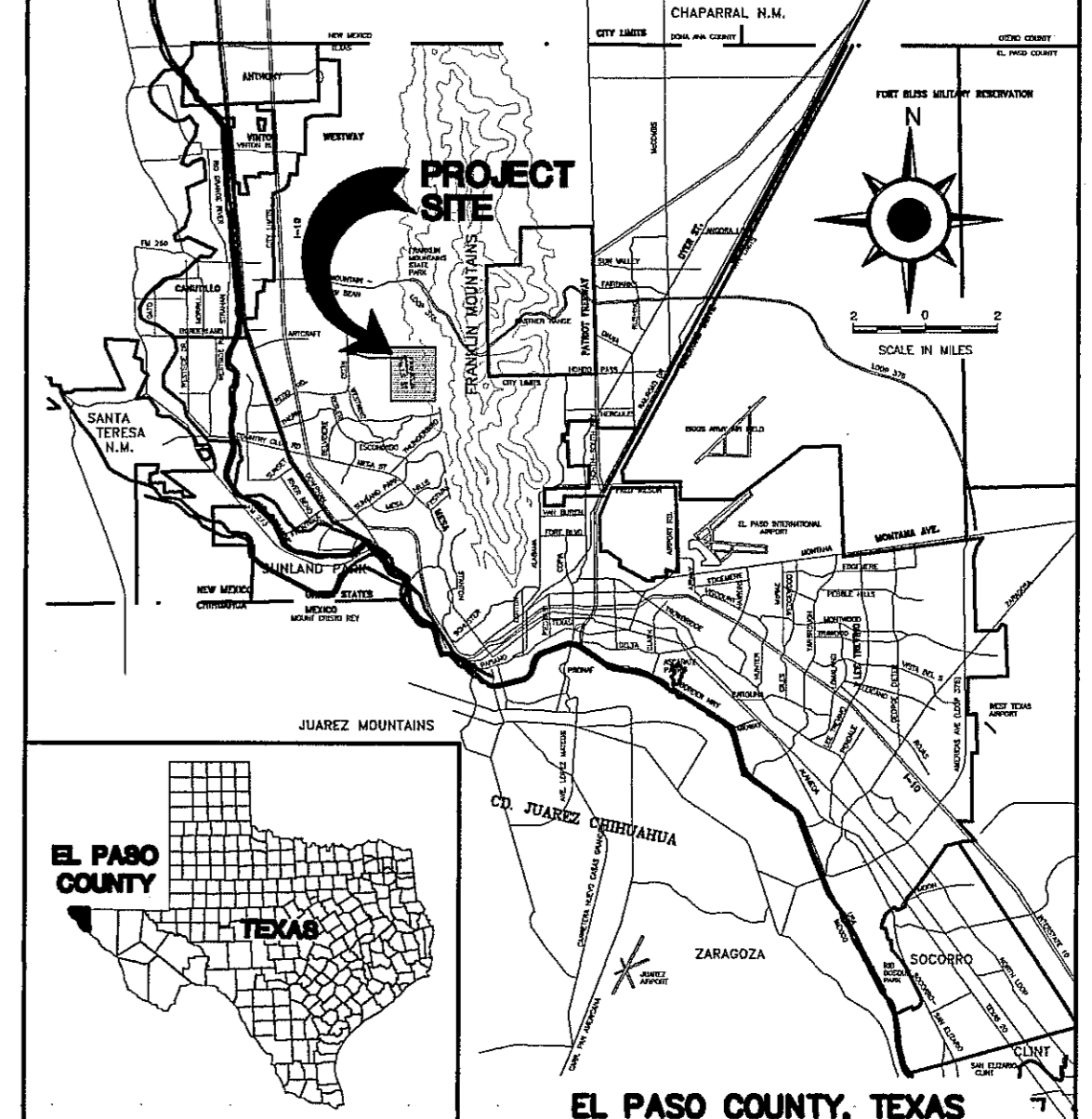
SCALE: N.T.S.

- GENERAL NOTES:**
1. THE FENCE REQUIRES FREQUENT INSPECTION AND PROMPT MAINTENANCE TO MAINTAIN ITS EFFECTIVENESS.
 2. INSPECT THE FENCE AFTER EACH RAINFALL.
 3. CHECK FOR AREAS WHERE RUN-OFF HAS ERODED A CHANNEL BENEATH THE FENCE, OR WHERE THE FENCE WAS CAUSED TO SAG OR COLLAPSE.
 4. ALL NEEDED REPAIRS SHALL BE PERFORMED IMMEDIATELY.
 5. REMOVE AND PROPERLY DISPOSE OF SEDIMENT WHEN IT IS ONE-THIRD TO ONE-HALF THE HEIGHT OF THE FENCE OR AFTER EACH STORM.
 6. 4" MIN. STEEL OR WOOD POSTS SPACED AT 6' O.C. SOFTWOOD POSTS SHALL HAVE A 3" MIN. DIAMETER OR NOMINAL 2"x4". HARDWOOD POSTS SHALL HAVE A MINIMUM CROSS SECTION OF 1.5"x1.5".

ROCK BERM NOTES:

1. USE ONLY OPEN GRADED ROCK (4" X 8") FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK (3" X 5") FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM 1" OPENING AND A MINIMUM WIRE DIAMETER OF 20GA. ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 6" WITH TEE POSTS OR WITH #5 OR #6 REBAR, WITH A MAXIMUM SPACING OF 48" ON CENTER.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY AND THE STONE AN/OR FABRIC CORE--WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 6" WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTRATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE--SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 6".
6. WHEN THE SITE IS COMPLETELY STABILIZED, THE ROCK BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

VICINITY MAP



EL PASO COUNTY, TEXAS

REFERENCES - BENCHMARK

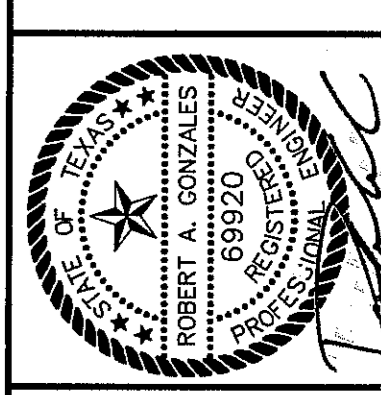
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET
ELEVATION = 4362.26 (CITY DATUM)
CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

QUANTUM
engineering
incorporated

414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373

Texas Registered Engineering Firm F-005146



SCALE: 1" = 100'

HORIZONTAL:	N/A
VERTICAL:	N/A
CONTOUR INTERVAL:	10'
DATE:	OCTOBER-2016
DESIGN BY:	M.A.G.
DRAWN BY:	C.A.D.
CHKD BY:	R.A.G.
APPROV BY:	R.A.G.
JOB NO.:	1515

PROJECT TITLE

**FRANKLIN HILLS UNIT TEN
SUBDIVISION
IMPROVEMENT PLANS**

EL PASO COUNTY, TEXAS

SHEET TITLE

**STORMWATER
POLLUTION
PREVENTION
PLAN**

SHEET NO.

C-32

32 OF 49 SHEETS

Oct 27 2016 10:08am rmdl
C:\Active Drawings\1515 Franklin Hills Unit 10 Subdivision\City Comments\3rd City Submittal\C-32 SWPPP.dwg

SODDING NOTES - CITY OF EL PASO PARKS

- SUBMIT THE FOLLOWING:
- SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS.
- QUALITY ASSURANCE
- MINIMUM AGE 18 MONTHS, WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING, WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS. DELIVERY, STORAGE AND HANDLING.
 - TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
 - DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE.
- SOIL CONDITIONS
- PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
 - WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
 - PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.
- SOIL AMENDMENTS
- PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSES OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AEDED ORGANIC COMPOST OR APPROVED EQUAL.
- FERTILIZER
- SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB. OF ACTUAL NITROGEN PER 1,000 SQUARE FEET BY WEIGHT.
- GRASS MATERIALS
- PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.
- PREPARATION
- PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 C.Y./1,000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAGS, AND LASER LEVEL TO AN EVEN GRADE, THEN ROLL FOR FIRMNESS. RAKE TILLED AREA AND REMOVE STONES OVER 1 INCH IN ANY DIMENSION, STICKS, ROOTS, RUBBISH AND OTHER EXTRANEIOUS MATTER. ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.
- SODDING OPERATIONS
- LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN GROUND.
 - IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MIDDY SOIL CONDITION.
 - REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED.
 - LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN 1/8" LAY SOD OVER MOISTENED SOIL, LIGHTLY RAKING THE SOIL AHEAD OF EACH SOD STRIP. BUTT ENDS AND SIDES OF SOD STRIPS; DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD.
 - WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.
- MAINTENANCE
- BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
 - MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTHWEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE. AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
 - SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS.
 - MAINTENANCE TO INCLUDE:
WATER SOD THOROUGH EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING.
REPAIR, REWORK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED.
REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD.
MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING.
FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1,000 SQ.FT. OF NITROGEN, WATER THOROUGHLY.
 - ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, RESODDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- CLEANUP AND PROTECTION
- DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
 - PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.
- INSPECTION AND ACCEPTANCE
- WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND MATERIALS PROMPTLY FROM PROJECT SITE.

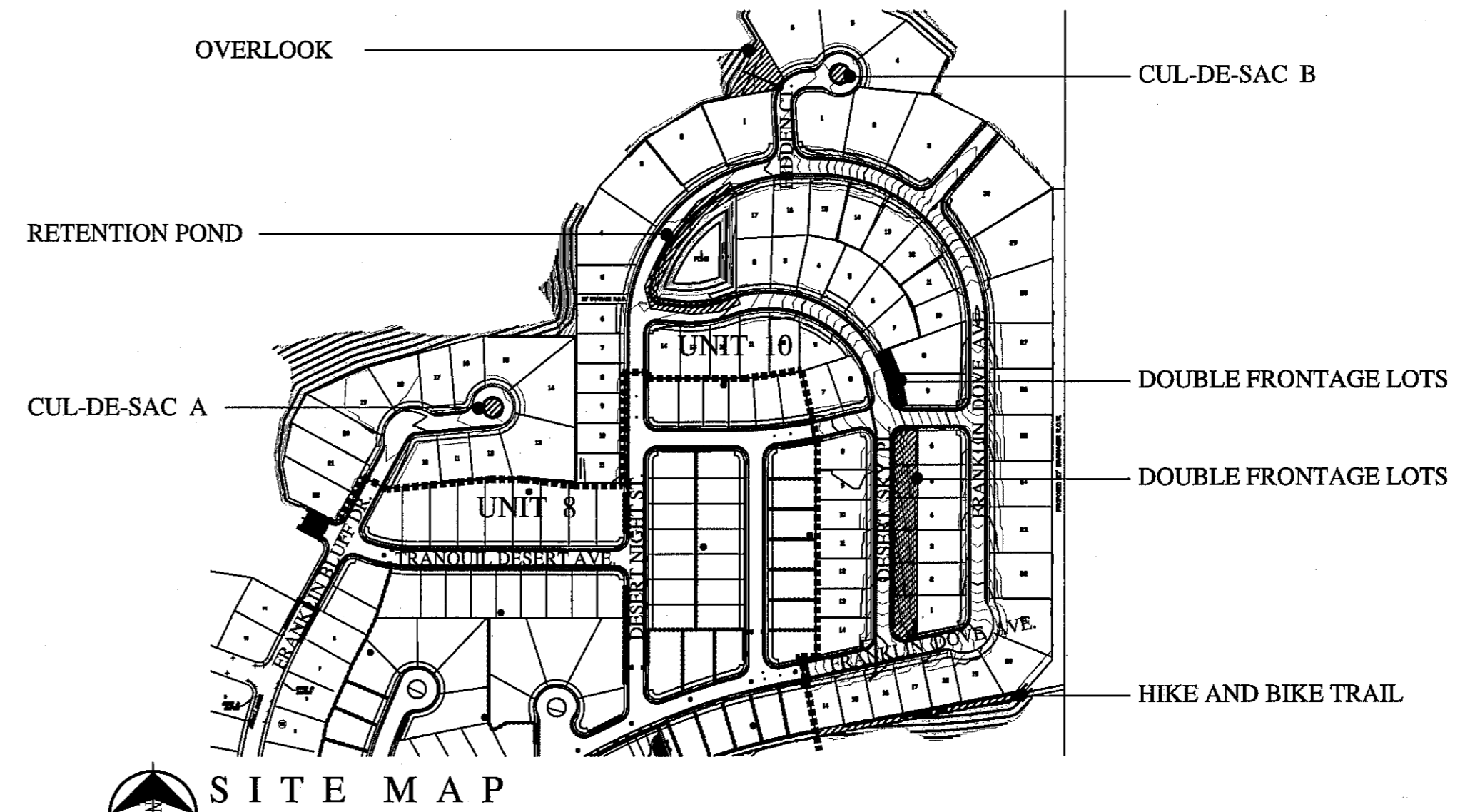
GENERAL IRRIGATION NOTES

- ALL MATERIALS LISTED BY BRAND NAME MAY BE SUBSTITUTED BY EQUAL OR BETTER PRODUCTS AS APPROVED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES, AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER CONTRACTORS WORKING ON THE SITE. COORDINATE INSTALLATION OF SLEEVINGS!
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WATER PRESSURE, WATER SOURCE AND SIZE IN THE FIELD PRIOR TO CONSTRUCTION. SHOULD A DISCREPANCY EXIST BETWEEN DESIGN PRESSURE AND FIELD PRESSURE THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
- IF PRESSURE IS MORE THAN 45 PSI DOWNSTREAM OF METER NOTIFY THE PROJECT MANAGER AND LANDSCAPE ARCHITECT IMMEDIATELY.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
- LOCATION OF THE CONTROLLER AND BACKFLOW SHALL BE APPROVED BY CITY OF EL PASO PARKS AND RECREATION DEPT.
- STAKE OUT ROTOR HEAD AND PIPING LOCATIONS PRIOR TO TRENCHING. AFTER APPROVAL BY CITY OF EL PASO PARKS AND RECREATION DEPT., TRENCHING AND EQUIPMENT INSTALLATION MAY BEGIN.
- THE CONTRACTOR SHALL NOT IMPEDE DRAINAGE IN ANY WAY. THE CONTRACTOR SHALL ALWAYS MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS, WALLS, ETC.
- ALL PIPING/WIRING RUNNING BENEATH PAVED SURFACES (DRIVES, WALKS, ETC.) SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES. SLEEVES MUST BE 2 X THE DIAMETER SIZE OF PIPE ENCASED. REMOTE CONTROL WIRING MUST BE RUN IN SEPARATE SLEEVES FROM IRRIGATION PIPE SLEEVES. EXTEND SLEEVE TWENTY-FOUR INCHES (24") BEYOND EDGE OF HARD SURFACES, WRAP ENDS WITH FOUR (4) MILS PLASTIC AND 6000 QUALITY PLASTIC TAPE. GRAY, CLOTH DUCT TAPE IS NOT ACCEPTABLE.
- DIRECT BURIAL 24V ELECTRIC CONTROL WIRE (#146) AND COMMON GROUND (#126) SHALL BE STANDARD COLORS- RED(W) AND WHITE(BROWN). INSTALL WIRE WITH ELBOW TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION LABEL ALL WIRE ENDS AT CONTROLLER AND IN VALVE BOX. PROVIDE THREE SPARE REMOTE CONTROL VALVE WIRES FOR EACH CONTROLLER AND EXTEND TO FURTHEST VALVE. WIRING SHALL BE IN SEPARATE TRENCH FIVE FEET (5') FROM PRESSURE MAIN LINE ON NORTH AND WEST SIDE OF MAIN. PROVIDE EXPANSION LOOPS FOR WIRING EVERY 200'. WIRES SHALL NOT BE STRETCHED TIGHT. USE DRI-SPLICE CONNECTORS FACTORY FILLED WITH SILICONE FOR VALVE WIRE. SPLICES ARE NOT ALLOWED BETWEEN CONTROLLER AND VALVES. SPARE REMOTE CONTROL VALVE WIRES MUST BE OTHER THAN STANDARD RED IN COLOR.
- ALL VALVES SHALL BE TAGGED WITH A WATERPROOF TAG SHOWING VALVE NUMBER LABEL ALL WIRING AT CONTROLLERS AND PANELS.
- ALL PIPE CUTS SHALL BE MITERED TO 90 DEGREES TO ASSURE PROPER SOLVENT WELD. ALL BURRS SHALL BE REMOVED PRIOR TO GLUING AND MUST HAVE A FILED BEVELED EDGE A MINIMUM OF ONE FOURTH (1/4") THE WIDTH OF PIPE WALL. USE "3-STEP" GLUING PROCESS. PIPE MUST BE CLEAN AND PRIMER APPLIED AS RECOMMENDED BY MANUFACTURER. WHEN GLUING PROCESS IS UNDERTAKEN, PRIMER SHOULD BE MOIST AS GLUE IS APPLIED AND PVC PIPING IS ASSEMBLED. USE IPS WELD-ON PURPLE PRIMER P60 OR P70. USE IPS WELD-ON GRAY GLUE #111 HEAVY DUTY. PIPE OFF ALL EXCESS CEMENT AND LET SET PER MANUFACTURER'S RECOMMENDATIONS. INITIAL SET TIMES SHALL BE MINIMUM OF 5 MIN. FOR 1/2 TO 1-1/4" PIPE, 8 MIN. FOR 1-1/2" PIPE TO 2" PIPE, 2 HOURS FOR 2-1/2" TO 6" PIPE. CURE TIMES ARE 20 MIN FOR 1/2" TO 1-1/4" PIPE, 30 MIN FOR 1-1/2" PIPE, 4 HOURS FOR 2-1/2" PIPE. WHEN HUMIDITY EXCEEDS 60% INCREASE CURE TIME BY 50%. ONCE WELD IS SET, PIPE SHALL NOT BE MOVED FOR ANY REASON UNTIL SET TIMES HAVE BEEN ACHIEVED. WATER SHALL NOT BE TURNED ON UNTIL ALL CURE TIMES HAVE BEEN ACHIEVED.
- A CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE MUST BE PRESENT DURING ALL FLUSHING, TESTING AND ADJUSTING. THE CONTRACTOR MUST PROVIDE 24 HRS NOTICE TO THE CITY OF EL PASO PARKS AND RECREATION DEPT. PRIOR TO CONDUCTING THE TESTS. FLUSHING AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PARKS AND RECREATION DEPARTMENT DESIGN AND CONSTRUCTION STANDARDS.
- THE FINISH GRADE OF ALL TRENCHED AREAS SHALL BE SMOOTH, EVEN AND CONSISTENT, FREE OF ANY HUMPS, DEPRESSIONS OR OTHER GRADING IRREGULARITIES. OVERFILL TRENCHES AND COMPACT SO NOT TO CRUSH THE PIPE. PRIOR TO SODDING INSPECT TRENCHES FOR SETTLING AND BACKFILL AND REGRADE IF NECESSARY. DO NOT LAY SOD UNTIL TRENCHES ARE ACCEPTABLE.
- THE CONTRACTOR SHALL FINE TUNE AND ADJUST THE IRRIGATION SYSTEM SO THAT NO WATER WILL RUN ONTO THE STREET OR WALKS.
- THE CONTRACTOR SHALL PROVIDE A WATER AUDIT CONDUCTED IN THE PRESENCE OF THE CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE.
- THE CONTRACTOR SHALL MAINTAIN ALL WORK UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- WATERING TIME: TO SET TURF STATIONS SEE TURF IRRIGATION SYSTEM DESIGN CRITERIA. SET PER LOCAL WATERING CODES.
- WARRANTY PERIOD IS ONE YEAR FROM DATE OF ACCEPTANCE.

TREES AND OTHER PLANTS IN LEAF DELIVERED TO THE SITE SHALL BE COVERED WITH CANVAS TARP DURING TRANSPORT. PLASTIC TARPS ARE PROHIBITED.

TRANSPORT IN ENCLOSED VAN IS ACCEPTABLE BUT PLANTS MUST BE UNLOADED IMMEDIATELY UPON ARRIVAL AT SITE.

DO NOT LIFT TREES BY THE TRUNK. LIFT BY CONTAINER.



SITE MAP SCALE: 1" = 300'-0"

GENERAL NOTES:

- THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING HIS BID.
- CONTRACTOR SHALL BE FAMILIAR WITH PLANS, DETAILS AND SPECIFICATIONS AS THEY PERTAIN TO THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IF ANY ITEMS CONTAINED WITHIN THE SCOPE OF WORK DEFINED HEREIN, ARE IN CONFLICT WITH THE PROPOSED CONTRACT.
- EXISTING UTILITY LINES ARE TO BE BLUE STAKED PRIOR TO EXCAVATION. CHECK AND FIELD VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO EXCAVATION. CONSTRUCTION WORK IN CLOSE PROXIMITY TO UNDERGROUND UTILITIES SHALL BE COORDINATED WITH APPROPRIATE AGENCY.
- THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH OWNER, ALL AFFECTED UTILITY COMPANIES, AND ALL OTHER ENTITIES HAVING JURISDICTION OVER THE PROJECT.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES PRIOR TO COMMENCING WITH THE WORK. ANY DISCREPANCY NOTED SHALL BE REPORTED IMMEDIATELY TO THE PROJECT MANAGER. FAILURE OF THE CONTRACTOR TO REPORT ANY FIELD AND PLAN DISCREPANCIES SHALL MAKE THE CONTRACTOR RESPONSIBLE FOR WORK THAT IS PERFORMED.
- VIBRATORY ROLLERS SHALL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE CITY ENGINEER.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN STRICT CONFORMANCE WITH ALL CURRENT SAFETY CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO, OSHA REQUIREMENTS.
- WARNINGS BEFORE EXCAVATING, CONTRACTOR SHALL LOCATE AND PROTECT ALL UNDERGROUND UTILITIES LINES. CONTRACTOR SHALL REPLACE ANY UTILITIES DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL WATER CONSTRUCTION SITE AREA A MINIMUM OF TWICE A DAY TO DUST CONTROL, ONCE IN THE MORNING AND ONCE IN THE AFTERNOON. THIS SHALL ALSO BE DONE ON WEEKENDS AND HOLIDAYS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING IMPROVEMENTS IN THE PROJECT AREA AND ITS VICINITY. ANY DAMAGE RESULTING FROM CONTRACTOR WORK SHALL BE RESTORED AT NO COST TO OWNER.
- CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATION DURING CONSTRUCTION ACTIVITY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ENVIRONMENTAL FINES RESULTING FROM HIS/HER WORK AND HOLD THE OWNER HARMLESS IN SUCH CASES.
- CONTRACTOR SHALL SECURE THE SITE DURING CONSTRUCTION TO PROTECT THE AREA FROM VANDALISM AND ILLEGAL TRESPASSING. CONTRACTOR SHALL SECURE THE SITE AT HIS/HER OWN COST. CONTRACTOR SHALL SITE PROTECTION MEASURES SHALL BE SUBMITTED TO THE PARKS AND RECREATION DEPT. FOR APPROVAL.
- ALL EXISTING UTILITIES CURRENTLY IN SERVICE MUST REMAIN IN SERVICE THROUGHOUT CONSTRUCTION EXCEPT AS NOTED IN THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES (INCLUDING SERVICE CONNECTIONS) FROM DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES.
- PRIOR TO BEGINNING CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO VERIFY LOCATION OF EXISTING UTILITIES & CONTRACTOR SHALL CALL THE RESPECTIVE "1-CALL" NUMBER FOR SUCH UTILITIES.
- CONTRACTOR SHALL INSURE THE FOLLOWING: ALL ACCESSIBLE ROUTES SHALL NOT EXCEED A RUNNING SLOPE GREATER THAN 1:20(5%). NO WHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50(2%). MAXIMUM SLOPE OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20(5%). MAXIMUM RUNNING SLOPE OF ANY CURB RAMP SHALL NOT EXCEED 1:12(8.33%) SLOPE. ALL ACCESSIBLE PATHS SHALL COMPLY WITH TAG AND ADAAS.

SHEET INDEX

L1	SITE MAP, SHEET INDEX, NOTES
L2	PLANTING, MATERIALS & IRRIGATION PLAN - CUL-DESACS
L3	PLANTING, MATERIALS & IRRIGATION PLAN - RETENTION POND
L4	PLANTING, MATERIALS & IRRIGATION PLAN - HIKE & BIKE
L5	DOUBLE FRONTAGE LOTS PLANTING AND MATERIALS
L6	DOUBLE FRONTAGE LOTS IRRIGATION
L7	PLANTING AND MATERIALS PLAN - OVERLOOK
L8	IRRIGATION PLAN - OVERLOOK
L9	LAYOUT PLAN - OVERLOOK
L10	PLANTING AND CONSTRUCTION DETAILS - OVERLOOK & TRAIL
L11	CONSTRUCTION DETAILS - OVERLOOK
L12	IRRIGATION DETAILS - OVERLOOK
L13	IRRIGATION DETAILS - OVERLOOK
L14	IRRIGATION DETAILS - OVERLOOK
L15	CUL-DE-SAC, RETENTION POND AND DOUBLE FRONTAGE LOTS, DETAILS

PARKS DEPARTMENT
REVIEWED BY *Anthony Del Rio* 11/04/2016



REVISIONS

NO.	DATE	DESCRIPTION

DATE

LANDSCAPE ARCHITECT
LISA MCNELLIS
1900 FOXBORO
LAS CRUCES, NEW MEXICO 88007
(505) 621-9092

ARCHITECT'S SEAL

SCALE

Horizontal: Contour Interval: N/A
Vertical: 8'/22.16

DATE: 8/22/16
DESIGN BY: LM
DRAWN BY: LM
CHKD. BY:
APPVD. BY:
JOB No.

PROJECT TITLE

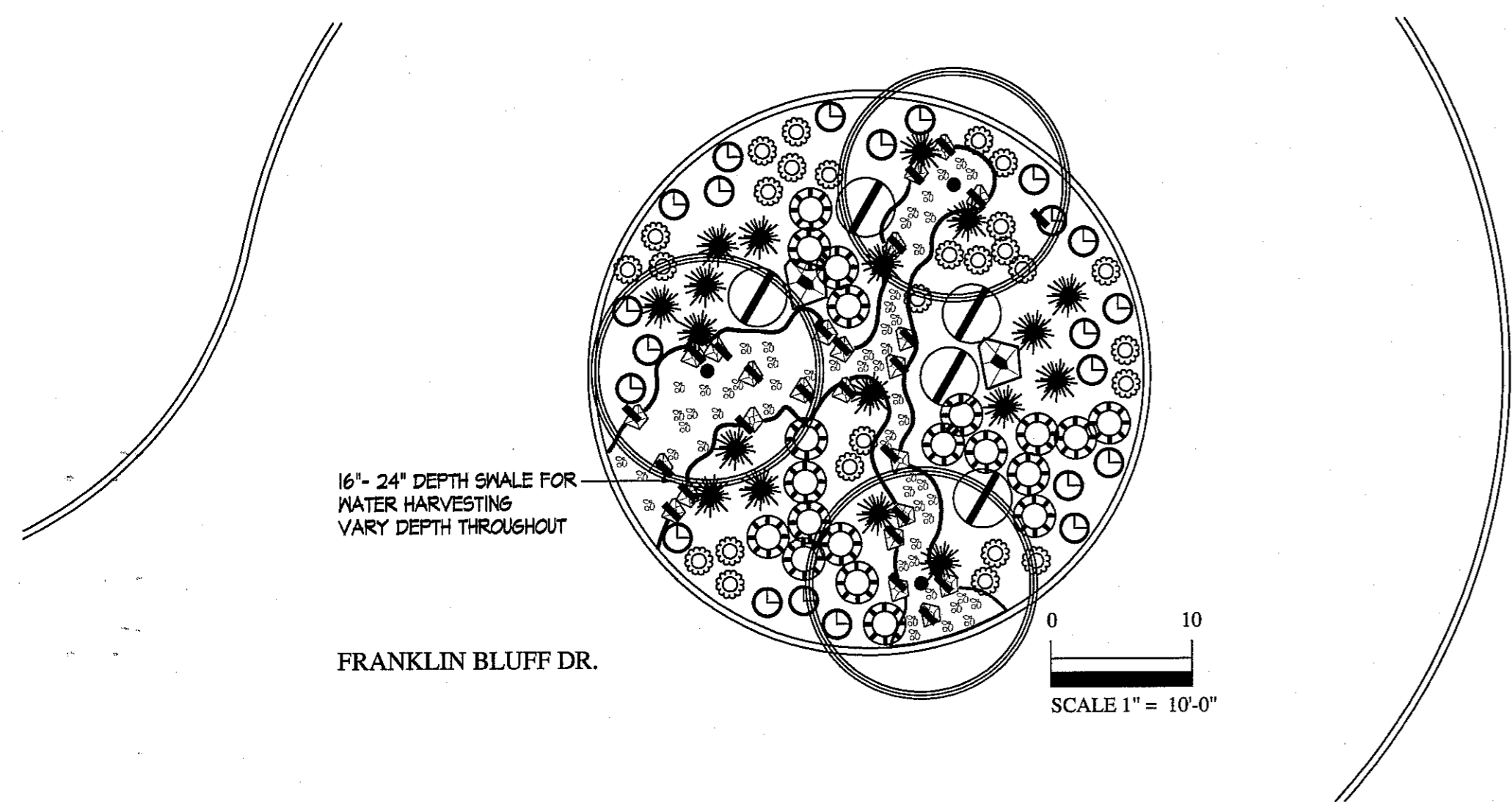
FRANKLIN HILLS UNIT 10 SUBDIVISION
LANDSCAPE IMPROVEMENTS

SHEET TITLE

L1

NOTES AND INDEX

SHEET 1 OF 15



CUL-DE-SAC A - PLANTING AND MATERIALS

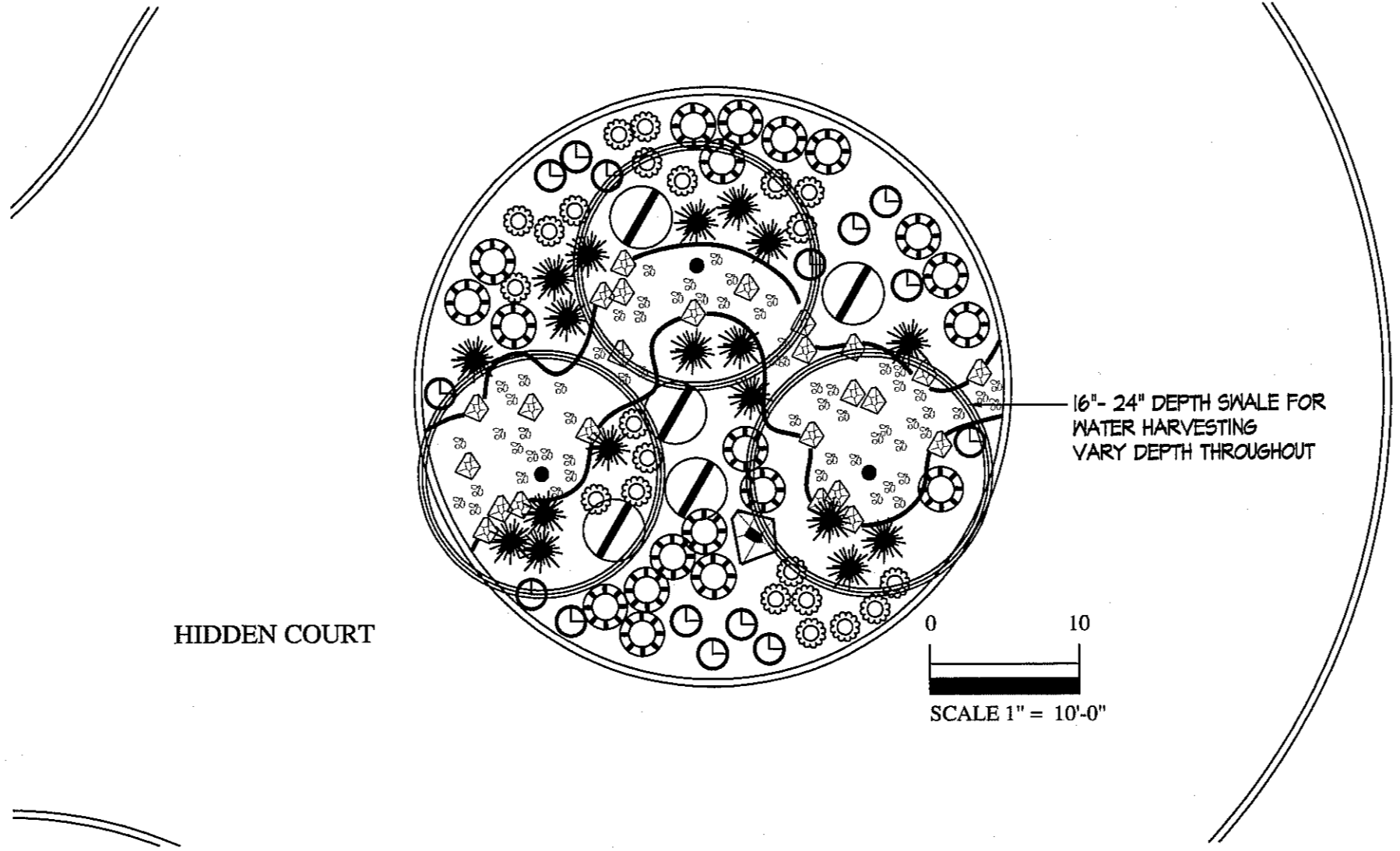
SCALE: 1" = 10'-0"

QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE

PLANT LEGEND/SCHEDULE CUL-DE-SAC A							
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SPACING	QUANT.	REMARKS
BR	⊗	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONI'	5 GAL	4' OC	20	6' HT CUT BACK MID FEB
EB	⊗	TURPENTINE BUSH	ERIGONIA LARICIFOLIA	5 GAL	8' OC	5	18' HT PRUNE AFTER BLOOM IN SPRING.
YL	⊗	NEW GOLD LANTANA	LANTANA CAMERA 'NEW GOLD'	5 GAL	9' OC	22	6' HT CUT BACK MID FEB
HF	⊗	FEATHER GRASS	NASELLA TENNISIMA	1 GAL	9' OC	18	18' HT DO NOT CUT - IT WILL DIE
BF	⊗	BLACKFOOT DAISY	MELAMPODIUM LEUCANTHUM	1 GAL	9' OC	21	18' HT DO NOT CUT - IT WILL DIE

TREE LEGEND/SCHEDULE CUL-DE-SAC A							
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
TR	⊗	TEXAS RED OAK	QUERCUS BUCKLEYI	24" BOX	2' CAL-10HT-6' SPREAD	3	SINGLE TRUNK-FULL

SEE PLANTING DETAILS ON LIS



CUL-DE-SAC B - PLANTING AND MATERIALS

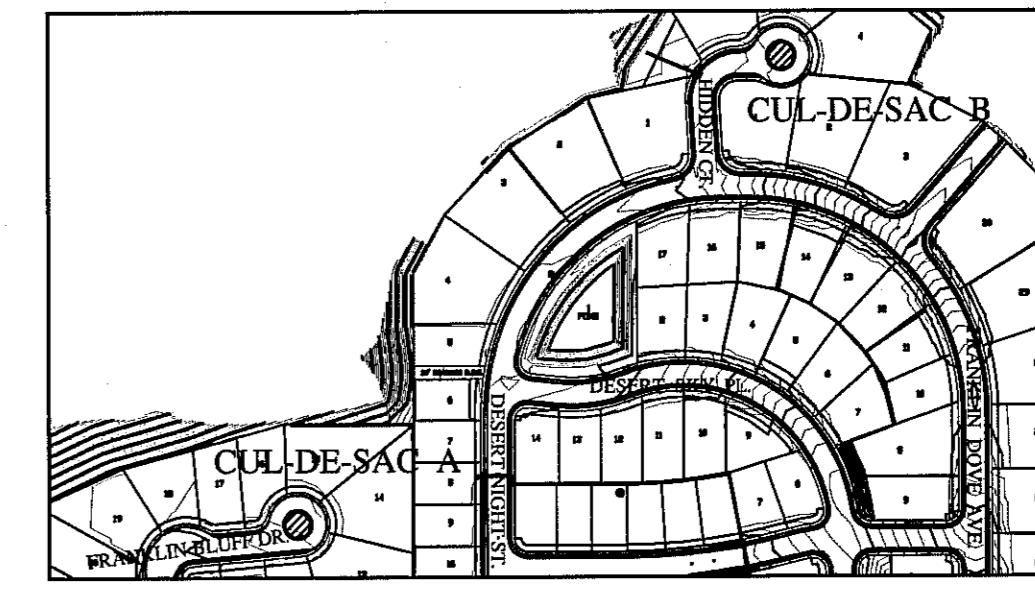
SCALE: 1" = 10'-0"

QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE

PLANT LEGEND/SCHEDULE CUL-DE-SAC B							
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SPACING	QUANT.	REMARKS
BR	⊗	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONI'	5 GAL	4' OC	20	6' HT CUT BACK MID FEB
EB	⊗	TURPENTINE BUSH	ERIGONIA LARICIFOLIA	5 GAL	8' OC	5	18' HT PRUNE AFTER BLOOM IN SPRING.
YL	⊗	NEW GOLD LANTANA	LANTANA CAMERA 'NEW GOLD'	5 GAL	9' OC	15	6' HT CUT BACK MID FEB
HF	⊗	FEATHER GRASS	NASELLA TENNISIMA	1 GAL	9' OC	18	18' HT DO NOT CUT - IT WILL DIE
BF	⊗	BLACKFOOT DAISY	MELAMPODIUM LEUCANTHUM	1 GAL	9' OC	22	18' HT DO NOT CUT - IT WILL DIE

TREE LEGEND/SCHEDULE CUL-DE-SAC B							
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
TR	⊗	TEXAS RED OAK	QUERCUS BUCKLEYI	24" BOX	2' CAL-10HT-6' SPREAD	3	SINGLE TRUNK-FULL

SEE PLANTING DETAILS ON LIS



DRAWING KEY
SCALE: 1" = 300'-0"

MATERIAL LEGEND CUL-DE-SAC A

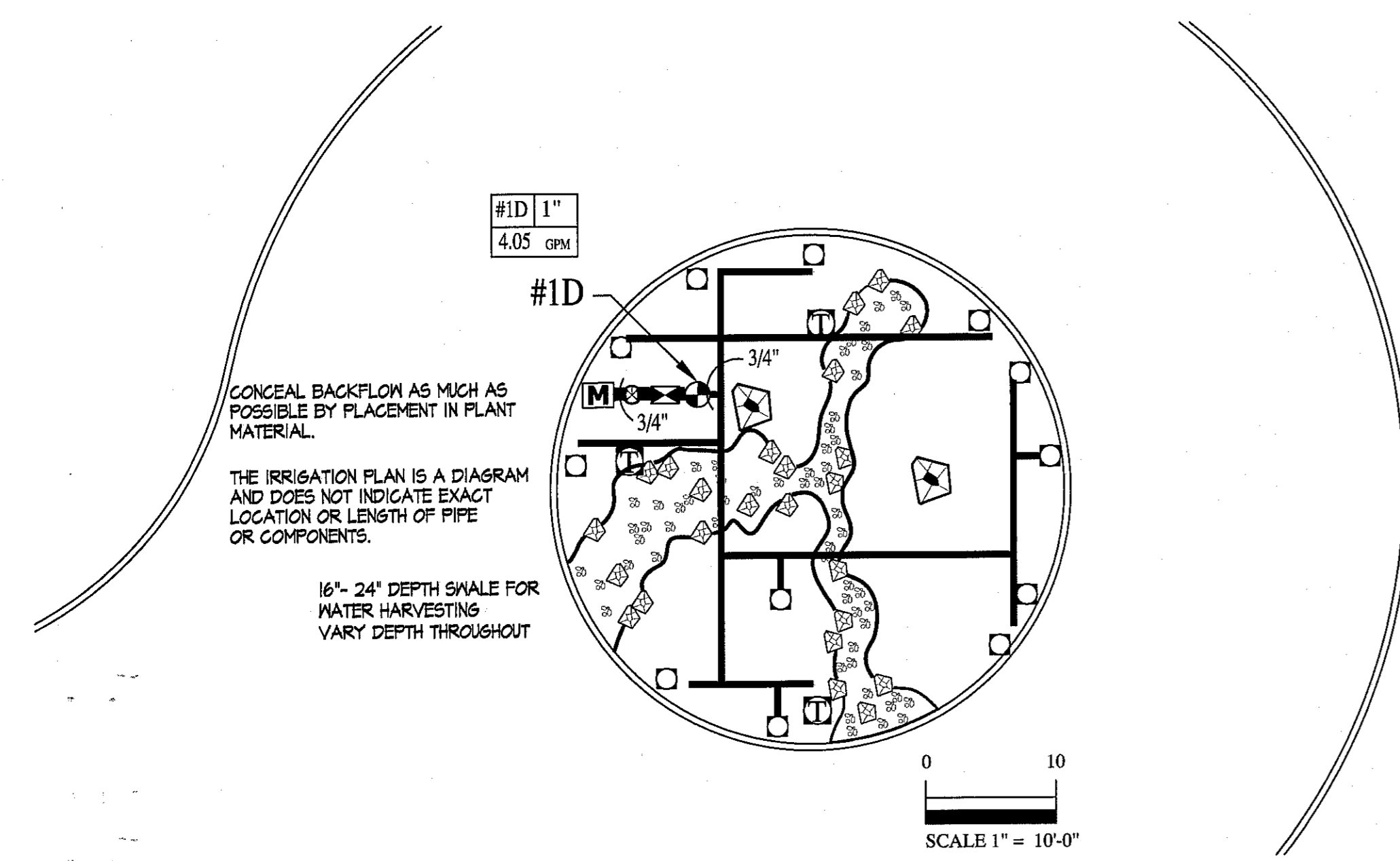
- 24" X 24" BONE WHITE RIVER ROCK BOULDERS QTY: 24 SEE 3 ON SHEET LIS
- 36" X 36" GOLDEN BROWN BOULDER QTY: 2 SEE 4 ON SHEET LIS
- 3/8" PADRE CANYON RED GRAVEL 3" DEPTH, 2" BELOW ALL CONCRETE SURFACES. USE WEED BARRIER. QTY: 150 SF SEE 13 ON SHEET LIS
- 2" - 8" FITTED ARROYO ROCK 6" DEPTH 50% MIX WITH COBBLESTONE 1'-3" - 50% - 3" DEPTH USE WEED BARRIER. QTY: 245 SF SEE 3 ON SHEET LIS

NOTE:
1. WEED BARRIER SHALL BE DEWITT PRO 5 OR APPROVED EQUAL. PINNED ON 3' CENTERS WITH U-SHAPED PINS. WEED BARRIER IS WATER PERMEABLE.
2. VERIFY QUANTITIES. PLAN TAKES PRECEDENCE.

MATERIAL LEGEND CUL-DE-SAC B

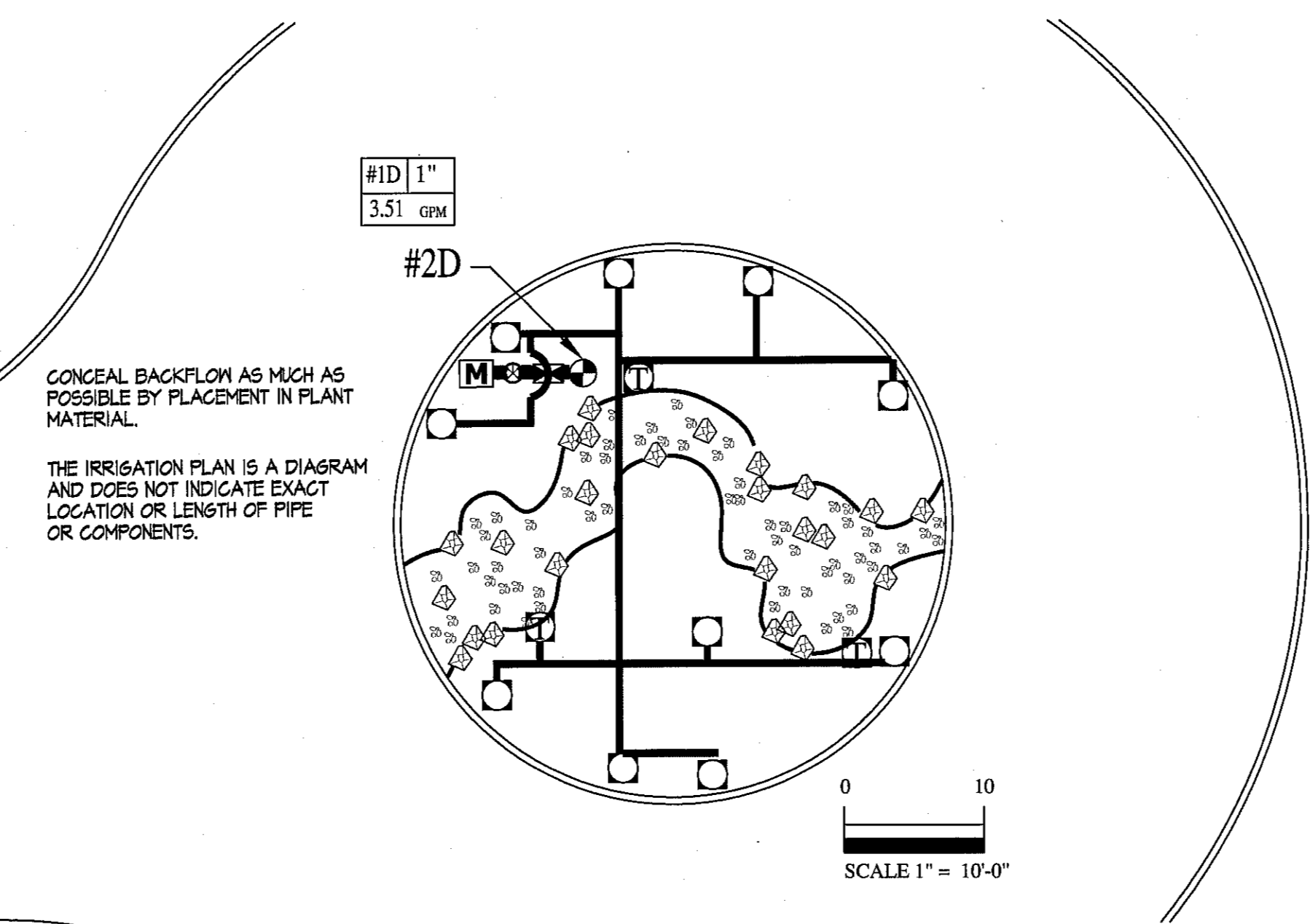
- 24" X 24" BONE WHITE RIVER ROCK BOULDERS QTY: 25 SEE 3 ON SHEET LIS
- 36" X 36" GOLDEN BROWN BOULDER QTY: 1 SEE 4 ON SHEET LIS
- 3/8" PADRE CANYON RED GRAVEL 3" DEPTH, 2" BELOW ALL CONCRETE SURFACES. USE WEED BARRIER. QTY: 884 SF SEE 13 ON SHEET LIS
- 2" - 8" FITTED ARROYO ROCK 6" DEPTH 50% MIX WITH COBBLESTONE 1'-3" - 50% - 3" DEPTH USE WEED BARRIER. QTY: 306 SF SEE 3 ON SHEET LIS

NOTE:
1. WEED BARRIER SHALL BE DEWITT PRO 5 OR APPROVED EQUAL. PINNED ON 3' CENTERS WITH U-SHAPED PINS. WEED BARRIER IS WATER PERMEABLE.
2. VERIFY QUANTITIES. PLAN TAKES PRECEDENCE.



CUL-DE-SAC A - IRRIGATION PLAN

SCALE: 1" = 10'-0"



CUL-DE-SAC B - IRRIGATION PLAN

SCALE: 1" = 10'-0"

IRRIGATION IS REGULATED BY:
PO BOX 13087
AUSTIN, TEXAS 78711-3087
TCEQ 512-239-6719
CHAPTER 34, TEXAS WATER CODE
IRRIGATOR'S LIC. #8947



VALVE NUMBER AND DRIP(D) OR TURF(T) NOTATION
#1D 1" 14.55 GPM
3.51 GPM
#2D

MATERIAL LEGEND:

- 3/4" PRESSURE MAIN PVC SCHEDULE 40, DEPTH 18" TO TOP OF PIPE. SEE DETAIL 8 ON SHEET LIS.
- 3/4" LATERAL PVC CLASS 200, DEPTH 12", TO TOP OF PIPE. SIZES ON PLAN. SEE DETAIL 8 ON SHEET LIS.
- SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. USE 1/2" SLEEVES FOR 3/4" PIPE
- DRIP EMITTER FOR TREES: RAINBIRD XERI-BIRD XBD-80 WITH FILTER. NO RETROFIT INSTEM PRESSURE REGULATOR. USE 8 XBD-20PG EMITTERS PER TREE. 27 GPM. SEE DETAILS 10 AND 12 ON SHEET LIS.
- DRIP EMITTER FOR PLANTS: RAINBIRD XERI-BIRD XBD-80 WITH FILTER. USE 1 XBD-20PG EMITTERS PER PLANT. DO NOT EXCEED 20' LENGTH OF MICROTUBE. NO RETROFIT INSTEM PRESSURE REGULATOR. SEE DETAIL 10 ON SHEET LIS.
- ELECTRIC REMOTE VALVE: 1" RAINBIRD PEBB VALVE IN LOCKING VALVE BOX WITH RAINBIRD PRF-100 RBY PRESSURE REGULATING FILTER. 200 MESH SCREEN. SEE DETAILS 5, 6, AND 7 ON LIS.
- ISOLATION VALVE IN LOCKING VALVE BOX USE IRRIGATION CONTROL VALVE BOX DETAIL.
- 3/4" WATER METER. LOCATION ON THIS PLAN IS APPROXIMATE.
- BACKFLOW: REDUCED PRESSURE 3/4" FEBCO 8297. INSTALL IN HOTBOX STEEL INSULATED ENCLOSURE ASSE 1060. R2B INSULATION. SEE DETAIL 4 ON LIS.
- RAINBIRD TB05 II CONTROLLER WITH TB05 II FIELD TRANSMITTER. ONLY ONE TRANSMITTER FOR FRANKLIN HILLS UID PROJECT IS REQUIRED. SEE DETAILS 5, AND 6 ON LIS.
- IF PRESSURE EXCEEDS 40 PSI DOWNSTREAM OF BACKFLOW CONTRACTOR MUST INSTALL MILKING BOOX. PRESSURE REGULATOR PRE-SET FOR 50 PSI. INSTALL USING STANDARD VALVE BOX INSTALLATION.
- ALL DRIP STATIONS SHALL BE SET FOR 240 MIN. PER WEEK. 80 MIN 3 TIMES PER WEEK.
- IF RUNOFF OCCURS USE MULTIPLE RUN TIMES WITH 2 HOUR SOAK PERIOD BETWEEN CYCLES. DO NOT REDUCE TOTAL NUMBER OF MINUTES PER WEEK.



REVISIONS

DATE

LISA MCNEILS
LANDSCAPE ARCHITECT
1900 FOXBORO
LAS CRUCES, NEW MEXICO 88007
(575) 621-9092

ARCHITECT'S SEAL

8/22/16

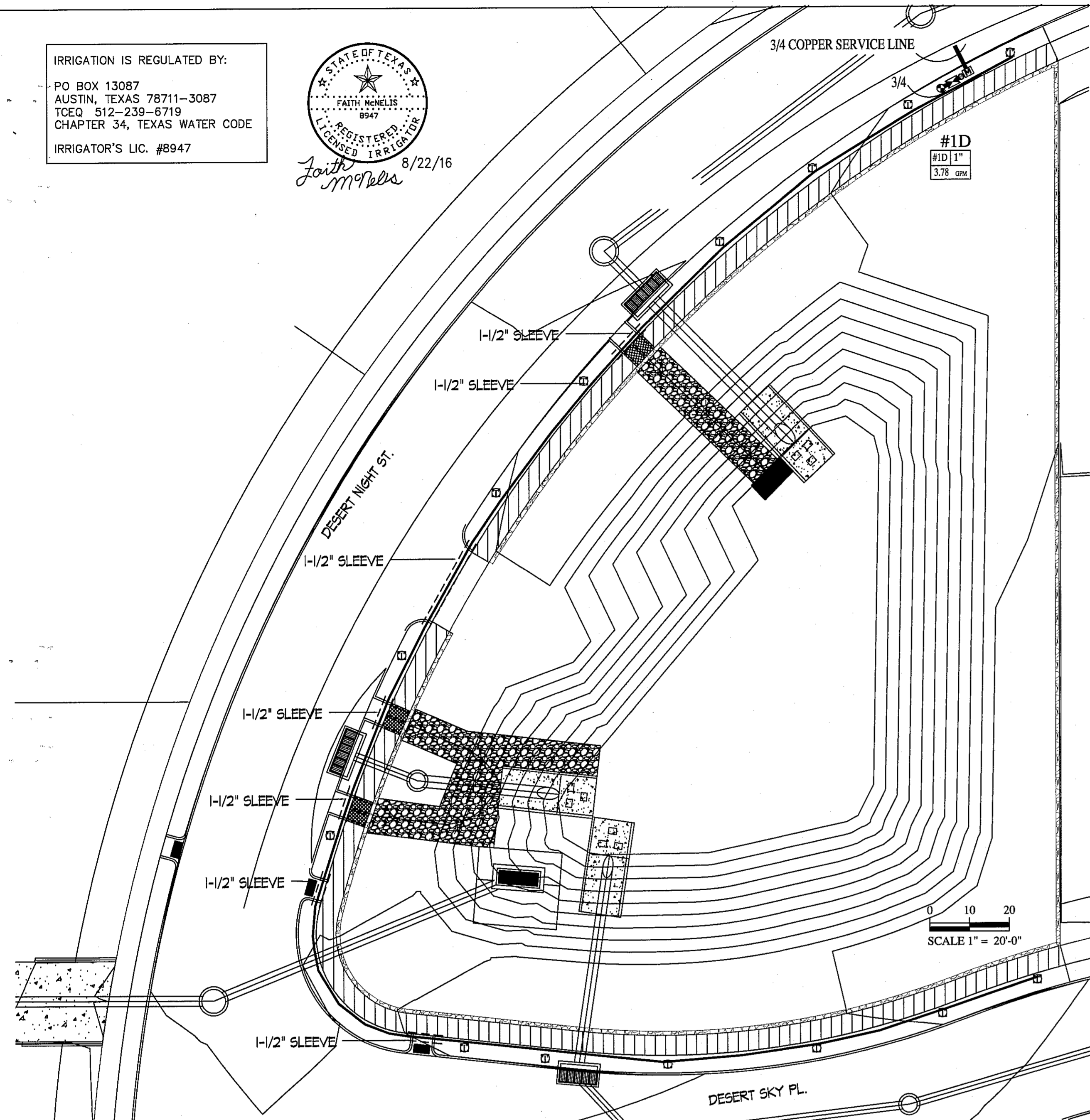
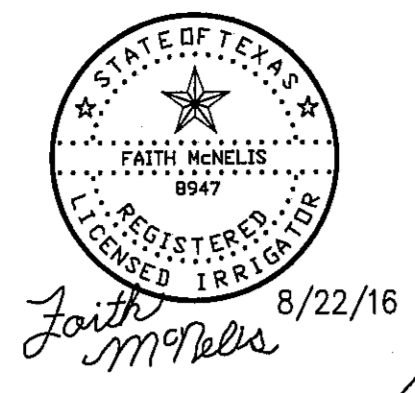
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Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: 8/22/16
DESIGN BY: LM
DRAWN BY: LM
CHKD BY: LM
APP'D BY: LM
JOB NO.

PROJECT TITLE
**FRANKLIN HILLS UNIT 10
SUBDIVISION**
FRANKLIN BLUFF DR. CUL-DE-SAC
HIDDEN COURT CUL-DE-SAC
EL PASO, TEXAS
AREA: 2387.98 SQ. FT. - 0548 ACRE

SHEET TITLE
L2
CUL-DE-SAC
PLANTING & IRRIGATION

SHEET 2 OF 13

IRRIGATION IS REGULATED BY:
 PO BOX 13087
 AUSTIN, TEXAS 78711-3087
 TCEQ 512-239-6719
 CHAPTER 34, TEXAS WATER CODE
 IRRIGATOR'S LIC. #8947



RETENTION POND - IRRIGATION
 SCALE: 1" = 20' - 0"

MATERIAL LEGEND:

- 3/4" PRESSURE MAIN PVC SCHEDULE 40, DEPTH 24" TO TOP OF PIPE. SEE DETAIL 8 ON SHEET LIS.
- 3/4" LATERAL PVC CLASS 200, DEPTH 16", TO TOP OF PIPE. SIZES ON PLAN. SEE DETAIL 9 ON SHEET LIS.
- - - SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. USE 1/2" SLEEVES FOR 3/4" PIPE.
- Ⓜ DRIP EMITTER FOR TREES, RAINBIRD XERI-BIRD XED-90 WITH FILTER WITH RETROFIT INSTEM PRESSURE REGULATOR. USE 8 XB-20FC EMITTERS PER TREE. 21 GPM. SEE DETAILS 10 AND 11 ON SHEET LIS.
- Ⓜ ELECTRIC REMOTE VALVE: 1" RAINBIRD PEBB VALVE IN LOCKING VALVE BOX WITH RAINBIRD PRF-100 REB NON PRESSURE REGULATING FILTER, 200 MESH SCREEN. SEE DETAILS 5, 6 AND 7 ON SHEET LIS.
- Ⓜ ISOLATION VALVE IN LOCKING VALVE BOX USE IRRIGATION CONTROL VALVE BOX DETAIL.
- Ⓜ 3/4" WATER METER. LOCATION ON THIS PLAN IS APPROXIMATE.
- Ⓜ BACKFLOW REDUCED PRESSURE 3/4" FIBRO 825Y. INSTALL IN HOTBOX STEEL INSULATED ENCLOSURE ASSE 1060. R25 INSULATION SEE DETAIL 9 ON LIS.
- Ⓜ RAINBIRD TBOS II CONTROLLER WITH TBOS II FIELD TRANSMITTER. ONLY ONE TRANSMITTER FOR FRANKLIN HILLS UID PROJECT IS REQUIRED. SEE DETAILS 5, 6 AND 7 ON LIS.

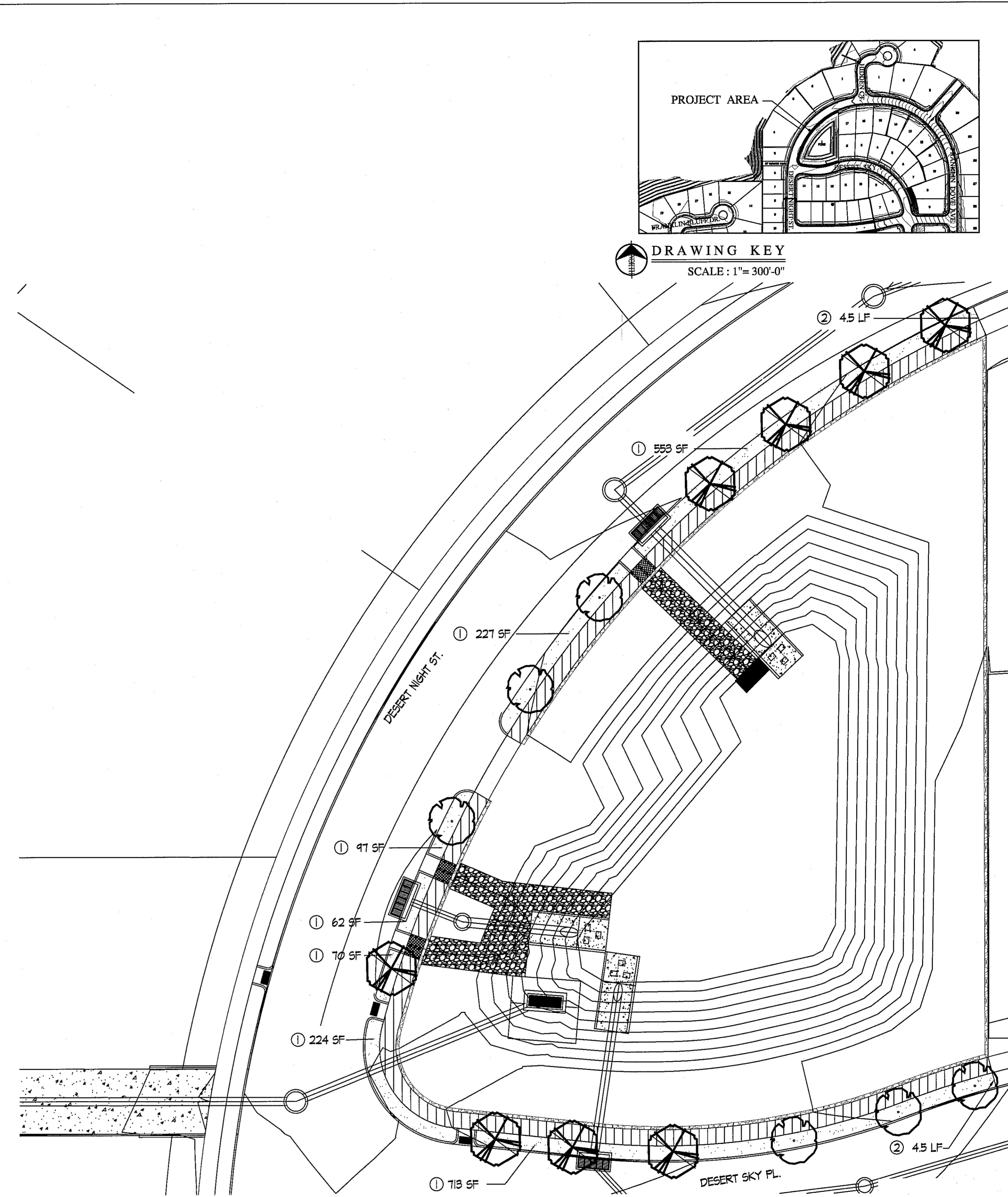
IF PRESSURE EXCEEDS 40 PSI DOWNSTREAM OF BACKFLOW CONTRACTOR MUST INSTALL WILKINS BOOM, PRESSURE REGULATOR PRE-SET FOR 50 PSI. INSTALL USING STANDARD VALVE BOX INSTALLATION. SEE DETAIL 4 ON LIS.

ALL DRIP STATIONS SHALL BE SET FOR 240 MIN. PER WEEK. 80 MIN 5 TIMES PER WEEK.

IF RUNOFF OCCURS USE MULTIPLE RUN TIMES WITH 2 HOUR SOAK PERIOD BETWEEN CYCLES. DO NOT REDUCE TOTAL NUMBER OF MINUTES PER WEEK.

VALVE NUMBER AND DRIP(D) OR TURF(T) NOTATION

#1D 1" ← VALVE SIZE
 14.53 GPM ← GALLONS PER MINUTE ON THIS VALVE.



RETENTION POND - PLANTING AND MATERIALS
 SCALE: 1" = 20' - 0"

TREES ARE SPACED RANDOMLY. SCALE PLANS FOR SPACING. VERIFY QUANTITIES. PLAN TAKES PRECEDENCE.

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
Ⓜ	RAT	RAYWOOD ASH	FRAXINUS OXYCARPA 'RAYWOOD'	24"BOX	2" GAL-10HT-9" SPREAD	8	SINGLE-FULL
Ⓜ	CPT	GHNESE PISTACHE	PISTACIA CHINENSIS	24"BOX	2" GAL-10HT-9" SPREAD	6	SINGLE-FULL

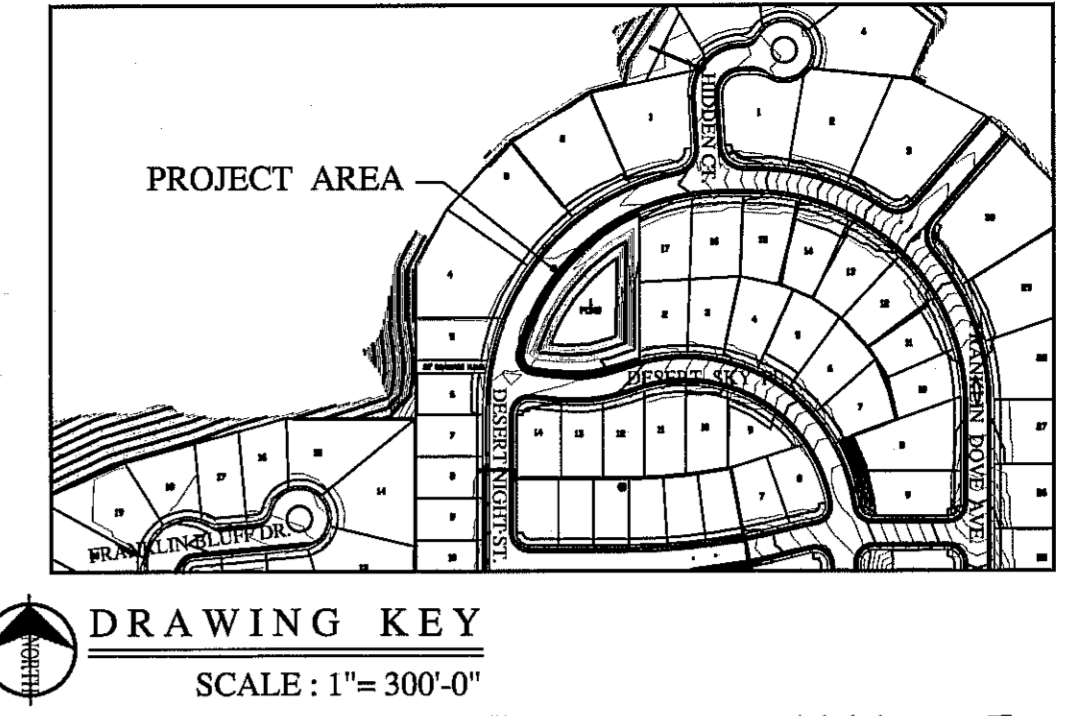
TREES MUST BE PRUNED FOR A 7' CLEARANCE ABOVE SIDEWALK.
 TREES WITH LOW FORKED BRANCHING PATTERN WILL NOT BE ACCEPTABLE. PRUNING FOR CLEARANCE WILL DISFIGURE TREE WITH LOW FORKS.

MATERIAL LEGEND RETENTION POND

- FRANKLIN RED GRAVEL CRUSHER FINES 2" DEPTH, 2" BELOW ALL CONCRETE SURFACES. USE NEED BARRIER. (117,194 SQ SF) SEE DETAIL 13 ON LIS.
- 1/4" X 4" STEEL EDGING TO CONTAIN GRAVEL. 2" DEPTH, 2" BELOW ALL CONCRETE.

NOTE:
 1. NEED BARRIER SHALL BE DENTIT PRO 5 OR APPROVED EQUAL PINED ON 9" CENTERS WITH 1/2" SHAPED PING. NEED BARRIER IS WATER PERMEABLE.
 2. VERIFY QUANTITIES. PLAN TAKES PRECEDENCE.

SEE PLANTING DETAILS ON DETAIL SHEET LIS.



REVISIONS	DATE

PROJECT TITLE
FRANKLIN HILLS UNIT 10 SUBDIVISION
 RETENTION POND
 DESERT SKY ST.
 EL PASO, TEXAS
 AREA: 1946 SQ. FT. - .0446 ACRE

ARCHITECT'S SEAL

 LISA MCNEELIS
 LANDSCAPE ARCHITECT
 1900 FOXBORO
 LAS CRUCES, NEW MEXICO 88007
 (505) 621-9032

SCALE
 Horizontal: N/A
 Vertical: Interval: N/A
 DATE: 8/22/16
 DESIGN BY: LM
 DRAWN BY: LM
 CHKD. BY: LM
 APPVD. BY: LM
 JOB No.:

THE CITY OF EL PASO, TEXAS

 Final Approval

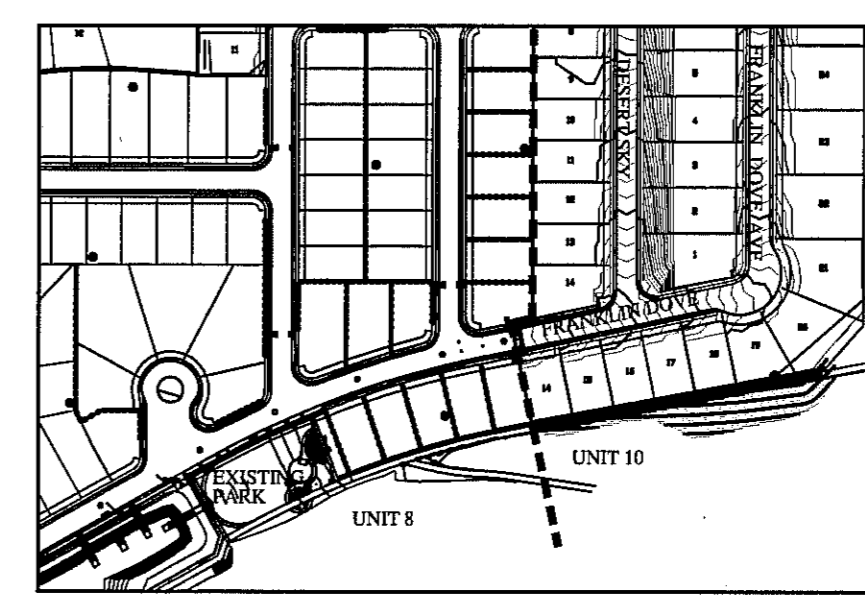
THE CITY OF EL PASO, TEXAS

 SHEET TITLE
L3
 RETENTION POND PLANTING & IRRIGATION
 SHEET 3 OF 15

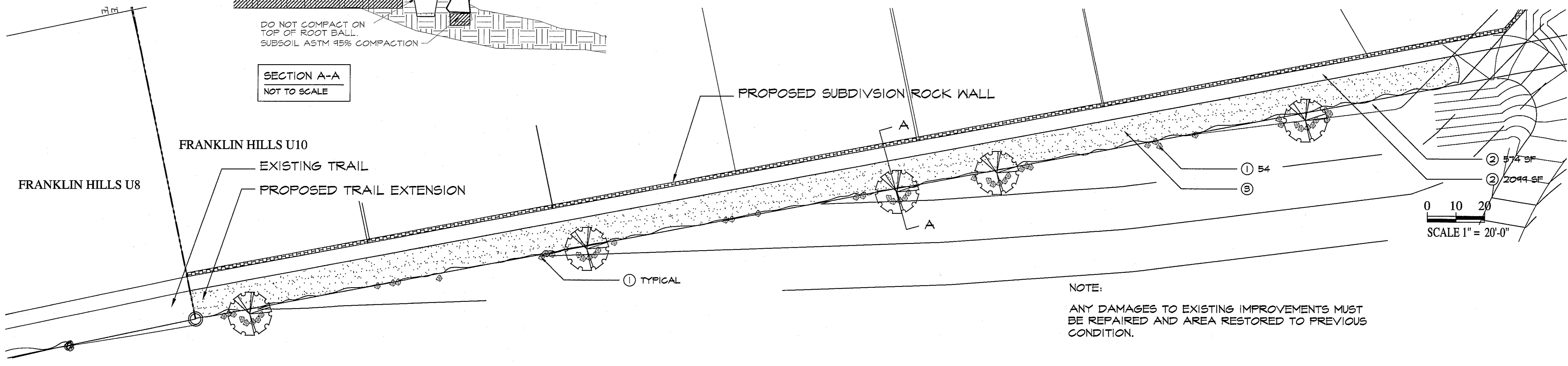
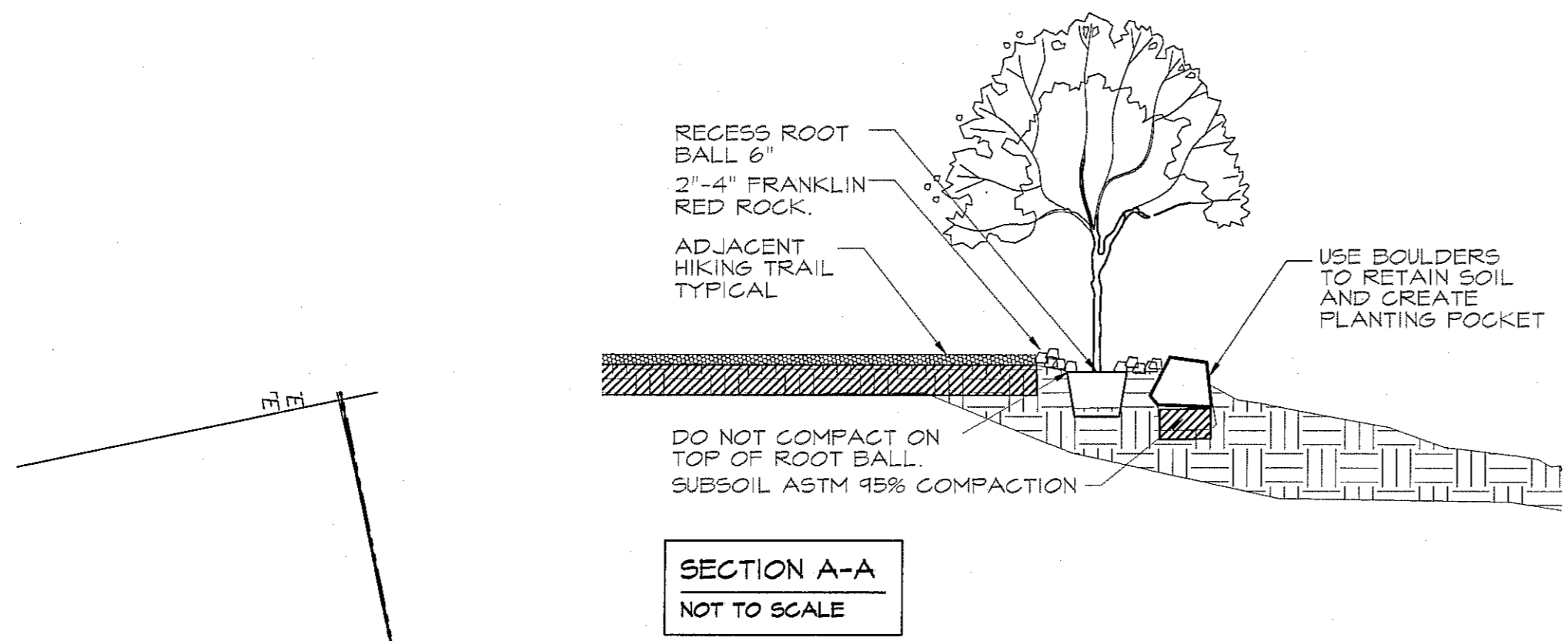
TREE LEGEND/SCHEDULE HIKE AND BIKE TRAIL							
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
⊕	NET	THORNLESS HONEY MESQUITE	PROSOPIS GLANDULOSA MAVERICK	24"BOX	2' GAL-10/HT-6' SPREAD	5	SINGLE TRUNK-FULL

SEE PLANTING DETAILS ON SHEET L10

- MATERIAL LEGEND CUL-DE-SAC A**
- 24" X 24" - 24" X 96" FRANKLIN RED BOLDERS 50/50 MIX OF SIZES. QTY: 54 ON DOWNHILL SIDE OF TREES SET BOLDERS TO RETAIN AND CREATE LEVEL AREA ADJACENT TO TRAIL FOR TREE PLANTING. SEE SECTION A - A THIS SHEET.
 - 2"-6" FRANKLIN RED FIELD STONE 9" DEPTH, 2" BELOW ALL CONCRETE SURFACES. NO NEED BARRIER. QTY: 2675 SF
 - 10' WIDE HIKE AND BIKE TRAIL - FRANKLIN RED FRANKLIN RED COMPACTED STABILIZED SCREENINGS
- NOTE:**
1. NEED BARRIER SHALL BE DENIT PRO 3 OR APPROVED EQUAL FINED ON 3' CENTERS WITH UPHOLED PINS. NEED BARRIER IS WATER PERMEABLE.
2. VERIFY QUANTITIES. PLAN TAKES PRECEDENCE.

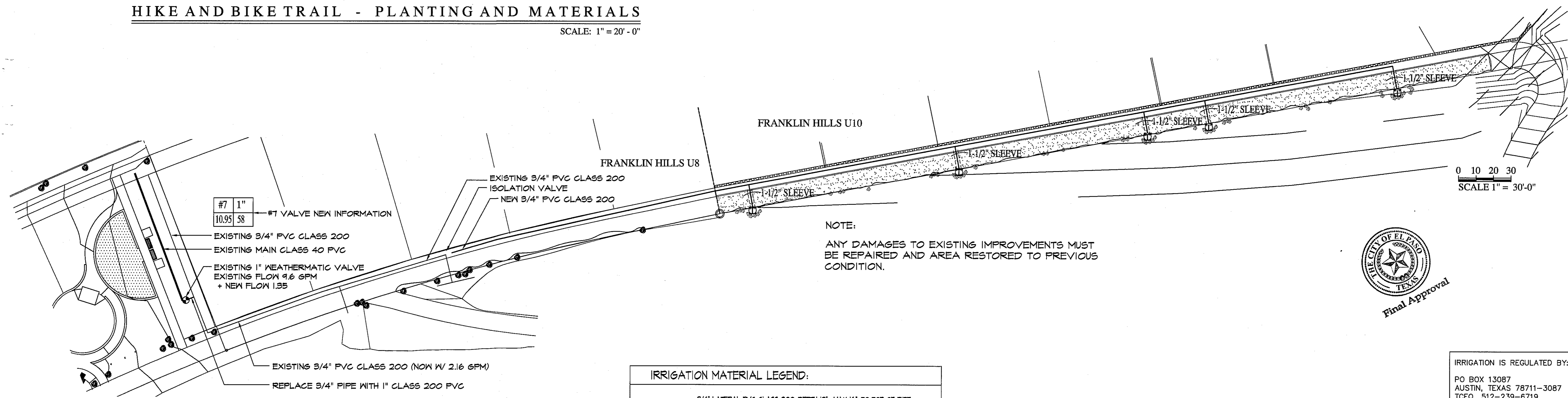


DRAWING KEY
SCALE: 1" = 300'-0"



NOTE:
ANY DAMAGES TO EXISTING IMPROVEMENTS MUST BE REPAIRED AND AREA RESTORED TO PREVIOUS CONDITION.

HIKE AND BIKE TRAIL - PLANTING AND MATERIALS
SCALE: 1" = 20' - 0"



- IRRIGATION MATERIAL LEGEND:**
- 3/4" LATERAL PVC CLASS 200, DEPTH 12" - MAX 16", TO TOP OF PIPE. SEE DETAIL 7 ON SHEET L12.
 - EXISTING 3/4" LATERAL PVC CLASS 200
 - SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. USE 1-1/2" SLEEVES FOR 3/4" PIPE
 - DRIP EMITTER FOR TREES; RAINBIRD XERI-BIRD XSD-80 WITH FILTER. NO RETROFIT. INSTEM PRESSURE REGULATOR. USE 8 XB-20FC EMITTERS PER TREE. 27 GPM. SEE DETAILS 5 AND 6 ON SHEET L12.
- SEE PLANTING DETAILS ON SHEET L10

HIKE AND BIKE TRAIL - IRRIGATION
SCALE: 1" = 30' - 0"



IRRIGATION IS REGULATED BY:
PO BOX 13087
AUSTIN, TEXAS 78711-3087
TCEQ 512-239-6719
CHAPTER 34, TEXAS WATER CODE
IRRIGATOR'S LIC. #8947

PARKS DEPARTMENT
REVIEWED BY *Anthony del Rio* 11/04/2016



REVISIONS

NO.	DATE	DESCRIPTION

ARCHITECT'S SEAL
LISA McNELIS ARCHITECT
1900 FOXBORO LAS CRUICES, NEAR MEXICO BOOY
(515) 621-9032

ARCHITECT'S SEAL
LISA McNELIS ARCHITECT & DESIGN
REGISTERED ARCHITECT - TEXAS
7136

8/22/16

SCALE
Horizontal: Contour Interval: N/A
DATE: 8/22/16
DESIGN BY: LM
DRAWN BY: LM
CHKD. BY: LM
APPD. BY: LM
JOB No.

PROJECT TITLE
FRANKLIN HILLS HIKE & BIKE TRAIL
FRANKLIN HILLS UNIT 10 SUBDIVISION
000000
EL PASO, TEXAS
AREA: 7781 SQ. FT. - .178 ACRES

SCALE
1" = 30'-0"

SEAL OF THE CITY OF EL PASO, TEXAS

SHEET TITLE
L4
HIKE & BIKE TRAIL
SHEET 4 OF 15

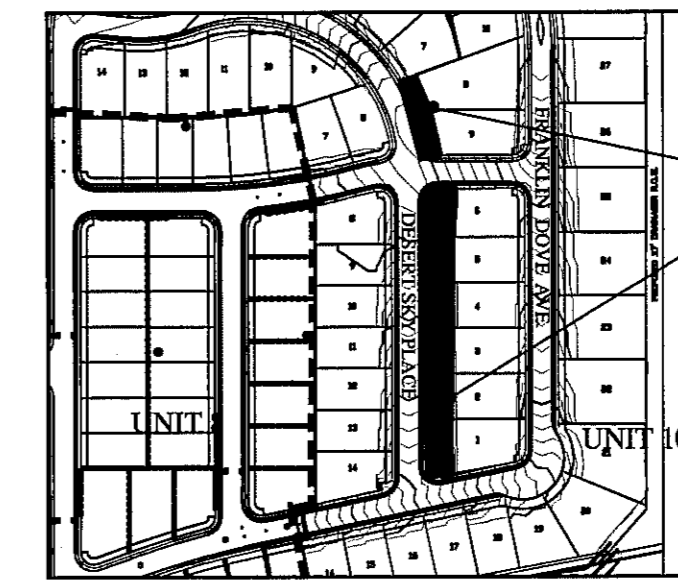
SEE SHEET L15 FOR PLANTING DETAILS
VERIFY! PLANS TAKE PRECEDENCE

MATERIAL LEGEND DOUBLE FRONTAGE LOTS	
	1. 18" X 18" - 24" X 24" GOLDEN BROWN BOULDERS 50/50 MIX OF SIZES. QTY: 210 ON DOWNHILL SIDE OF TREES AND PLANTS SET BOULDERS TO RETAIN AND CREATE LEVEL AREA FOR PLANTING. SEE SECTION A-A THIS SHEET.
	2. 18" X 18" - 24" X 24" BONE WHITE RIVER ROCK BOULDERS 70/30 MIX OF THE 2 SIZES. 18"-108". QTY: 141 ON DOWNHILL SIDE OF TREES AND PLANTS SET BOULDERS TO RETAIN AND CREATE LEVEL AREA FOR PLANTING AND TO SET IN AGAINST THE EDGE OF THE DRY STREAM BED. SEE SECTION B-B THIS SHEET.
	3. 2"-4" FRANKLIN RED 4" DEPTH, 2" BELOW ALL CONCRETE SURFACES. USE NEED BARRIER. QTY: 22,652 SF
	4. 3/4" FRANKLIN RED GRAVEL 2" DEPTH 2" BELOW CONCRETE. QTY: 3361 SF USE NEED BARRIER
	5. 2"-8" PITTED ARROYO ROCK - 6" DEPTH SEE SECTION B-B THIS SHEET.
	6. TREE WELL - 1/2 CIRCLE RETAINING WALL FOR TREES. 9'-0" HT. ON UPHILL SIDE SLOPING TO 1'-0" STONE TO MATCH SUBDIVISION WALLS. SEE SECTION A-A THIS SHEET.

NOTE:
1. NEED BARRIER SHALL BE DEWITT PRO 5 OR APPROVED EQUAL, PINNED ON 3' CENTERS WITH U-SHAPED PINS. NEED BARRIER IS WATER PERMEABLE.
2. VERIFY QUANTITIES. PLAN TAKES PRECEDENCE.

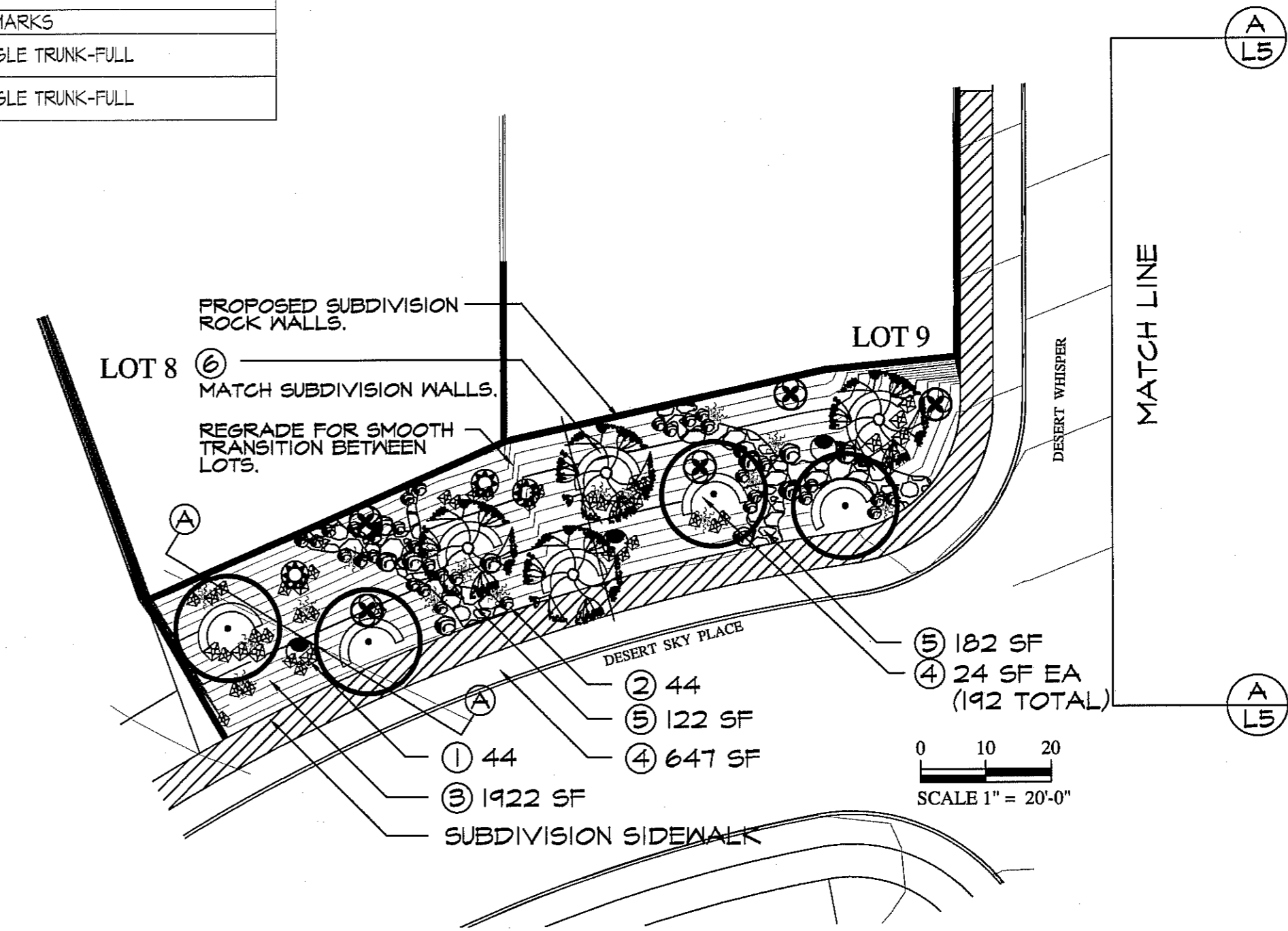
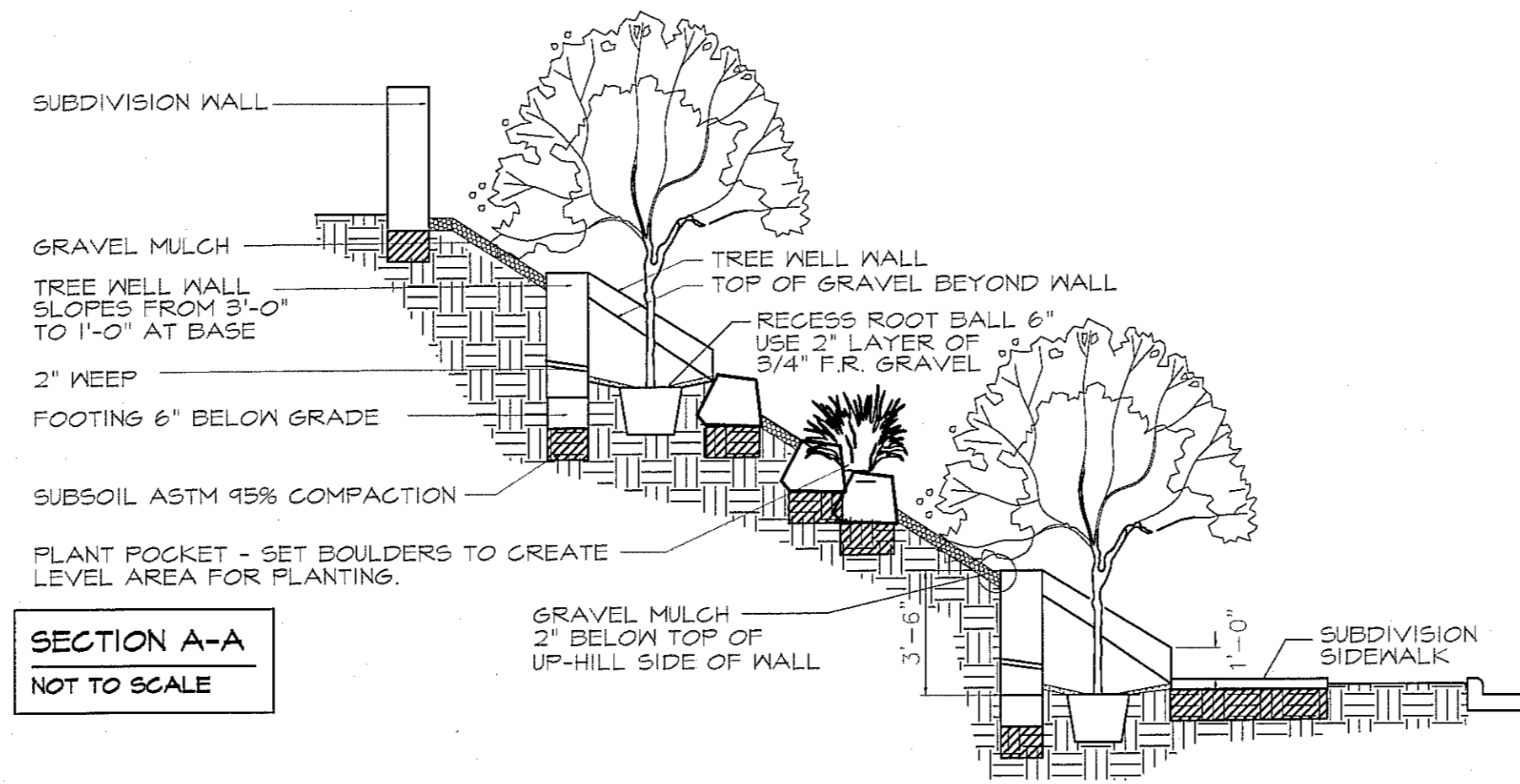
PLANT LEGEND/SCHEDULE DOUBLE FRONTAGE LOTS								
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SPACING	QUANT.	SIZE	REMARKS
D6		DEER GRASS	MULLENBERGIA RIGENS	5 GAL	-	50	18" HT	DO NOT CUT - IT WILL DIE
EB		TURPENTINE BUSH	ERICANERIA LARICIFOLIA	5 GAL	-	7	18" HT	PRUNE AFTER BLOOM IN SPRING.
AP		APACHE PLUME	FALLUSIA PARADOXA	5 GAL	-	17	18" HT	CUT BACK MID FEB
SO		SOTOL	DASYLIRION WHEELERI	5 GAL	-	36	18" HT	DO NOT CUT
AS		DESERT SENNA	SENNA NEMOPHILA	5 GAL	-	14	18" HT	CUT BACK MID FEB
OC		MEXICAN BUCKEYE	UNGNADIA SPECIOSA	5 GAL	-	14	6" HT	DO NOT CUT

TREE LEGEND/SCHEDULE DOUBLE FRONTAGE LOTS							
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
TRO		TEXAS RED OAK	QUERCUS BUCKLEYI	24" BOX	2" CAL-10HT-6' SPREAD	12	SINGLE TRUNK-FULL
TRO		LIVE OAK	QUERCUS EMORYI OR VIRGINIANA	24" BOX	2" CAL-10HT-6' SPREAD	16	SINGLE TRUNK-FULL

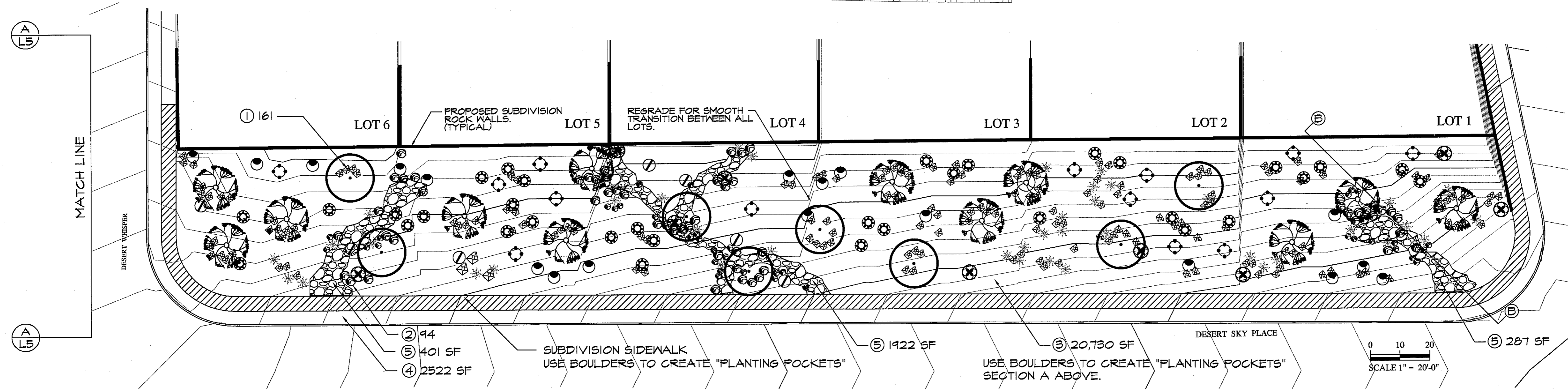
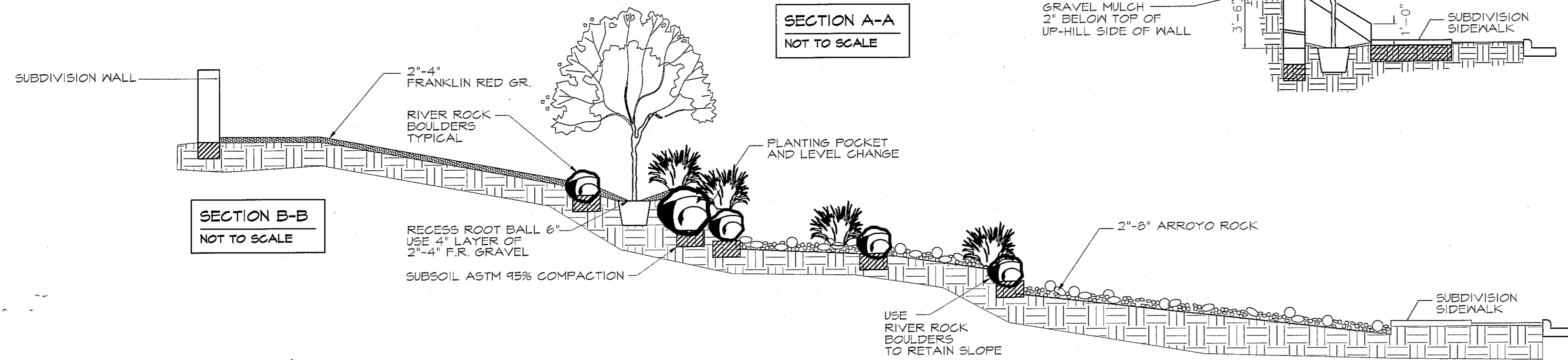


DRAWING KEY
SCALE: 1" = 300'-0"

PROJECT AREAS
DOUBLE
FRONTAGE LOTS



DOUBLE FRONTAGE LOTS - PLANTING AND MATERIALS
SCALE: 1" = 20' - 0"



DOUBLE FRONTAGE LOTS - PLANTING AND MATERIALS
SCALE: 1" = 20' - 0"

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE: Horizontal: Vertical: Contour Interval: N/A

DATE: 8/22/16

DESIGN BY: LM

DRAWN BY: LM

CHKD. BY: LM

APPROV. BY: LM

JOB No.

PROJECT TITLE

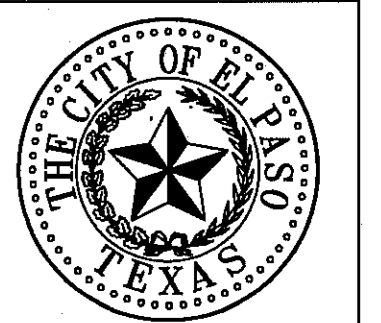
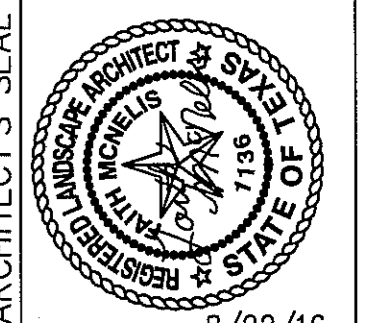
FRANKLIN HILLS UNIT 10
SUBDIVISION
DOUBLE FRONTAGE LOTS
EL PASO, TEXAS

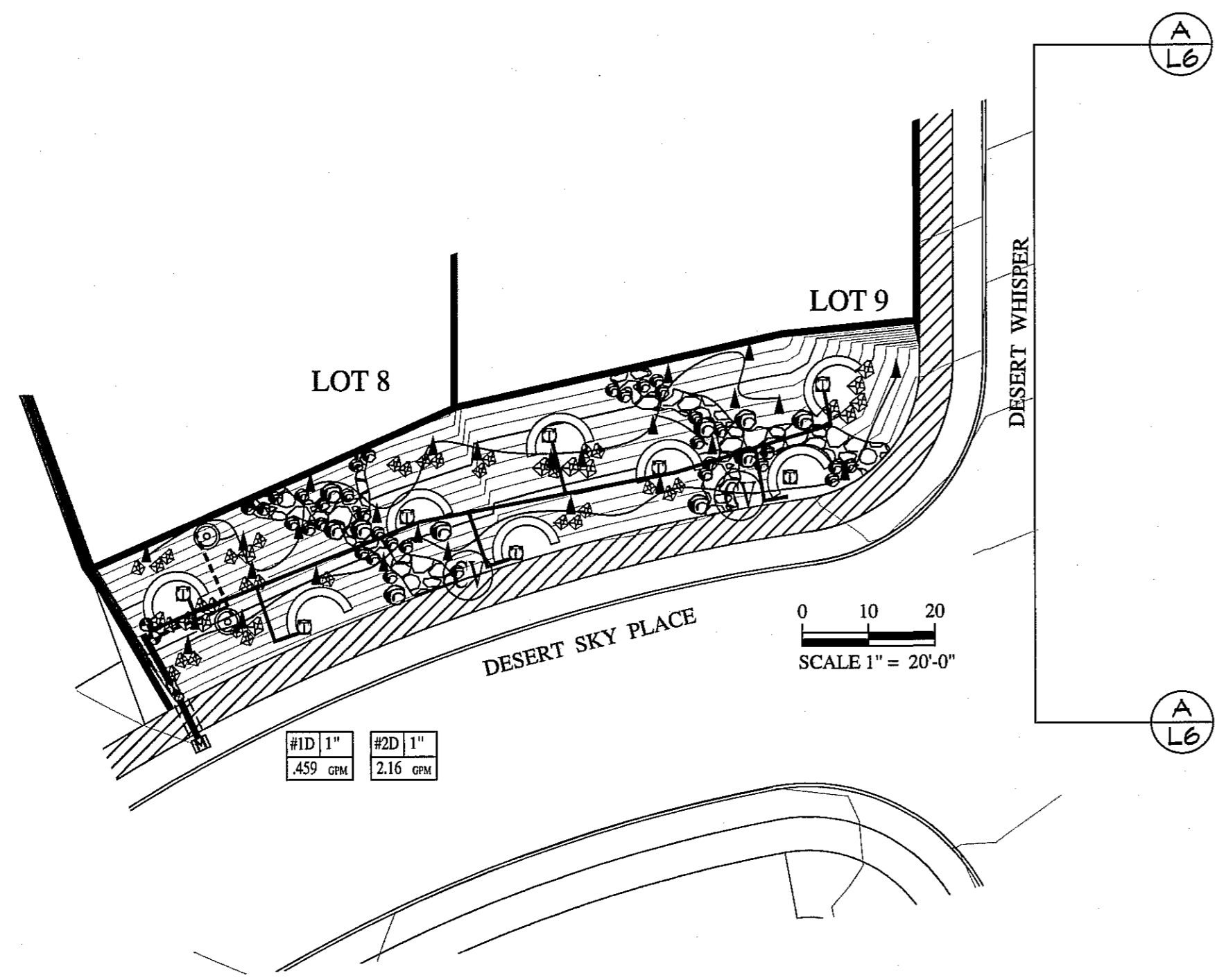
SHEET TITLE

L5
DOUBLE FRONTAGE
LANDSCAPE

SHEET 5 OF 15

LISA MCNELLIS
LANDSCAPE ARCHITECT
1900 FOXBORO
LAS CRUCES, NEW MEXICO 88007
(505) 621-3032





DOUBLE FRONTAGE LOTS - IRRIGATION
SCALE: 1" = 20'-0"

VALVE NUMBER AND DRIP(D) OR TURF(T) NOTATION
 #1D 1" VALVE SIZE
 14.55 GPM GALLONS PER MINUTE ON THIS VALVE.

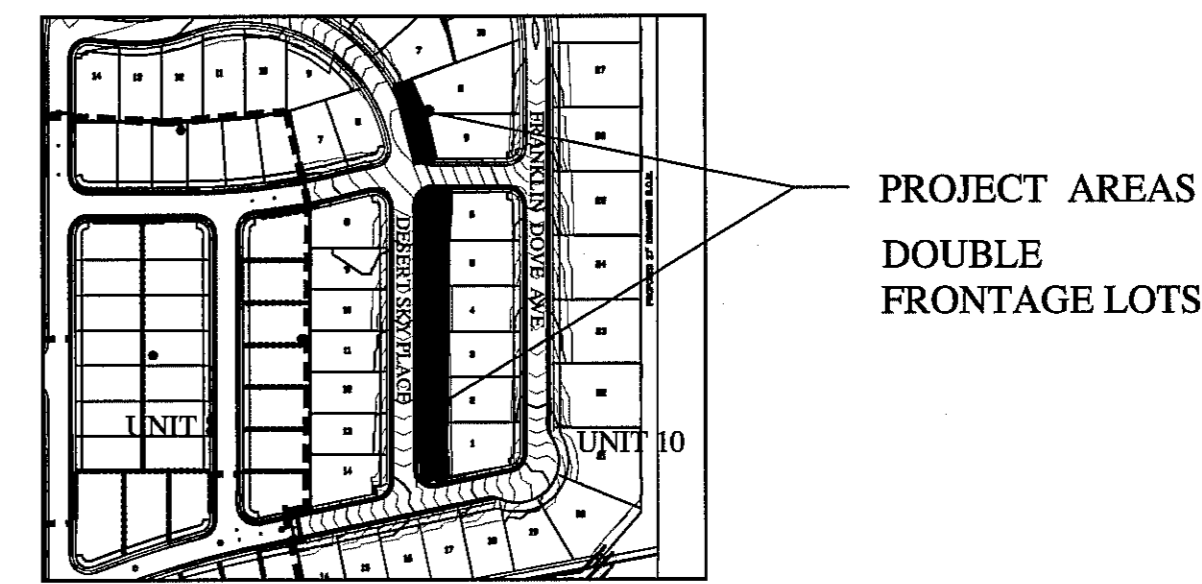
MATERIAL LEGEND:

	3/4" PRESSURE MAIN PVC SCHEDULE 40, DEPTH 16" TO TOP OF PIPE. SEE DETAIL 8 ON SHEET L15.
	3/4" LATERAL PVC CLASS 200, DEPTH 12", TO TOP OF PIPE. SIZES ON PLAN. SEE DETAIL 8 ON SHEET L15.
	SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. USE 1-1/2" SLEEVES FOR 3/4" PIPE
	DRIP EMITTER FOR TREES, RAINBIRD XERI-BIRD XBD-80 WITH FILTER. USE RETROFIT INSTEM PRESSURE REGULATOR. USE 8 XB-20PC EMITTERS PER TREE. 21 GPM. SEE DETAILS 10 AND 11 ON SHEET L15.
	TORO DRIP TUBING 1/2" WITH FLUSH CAPS IN VALVE BOX AT ENDS. USE INSERT AND STAINLESS STEEL CLAMPS FOR CONNECTIONS. SEE DETAIL THIS SHEET
	ELECTRIC REMOTE VALVE - 1" RAINBIRD FE8B VALVE IN LOCKING VALVE BOX WITH RAINBIRD FRF -100 REV NON PRESSURE REGULATING FILTER. 200 MESH SCREEN. SEE DETAILS 5, 6 AND 7 ON SHEET L15.
	ISOLATION VALVE IN LOCKING VALVE BOX
	3/4" WATER METER. LOCATION ON THIS PLAN IS APPROXIMATE. WITH 3/4" COPPER SERVICE LINE. MEET LOCAL CODE.
	BACKFLOW: REDUCED PRESSURE 3/4" FEBCO 825Y. INSTALL IN HOTBOX STEEL INSULATED ENCLOSURE ASSE 1060. R25 INSULATION INSTALL PER LOCAL CODES. SEE DETAIL 9 ON L15.
	RAINBIRD TBOS 11 CONTROLLER - TRANSMITTER WAS SPEC. WITH GULDESACS. USE MANUFACTURER'S SPECIFICATIONS. SEE DETAILS 5, AND 6 ON L15.
	MATCO-NORCA SPRING LOADED IN-LINE CHECK VALVE IN VALVE BOX. USE SAME VALVE BOX INSTALLATION DETAIL AS IRR. CONTROL VALVE.

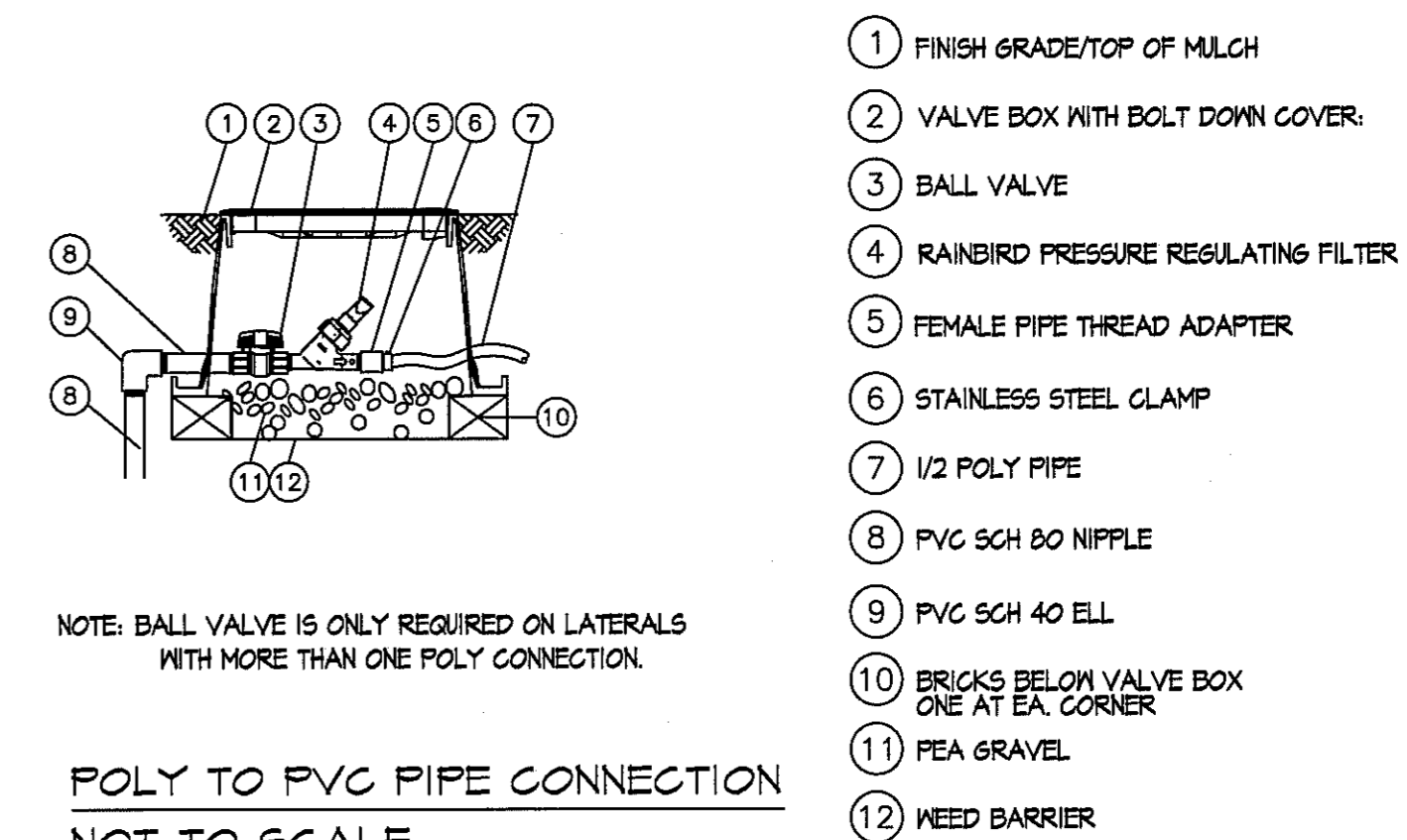
IF PRESSURE EXCEEDS 90 PSI DOWNSTREAM OF BACKFLOW, CONTRACTOR MUST INSTALL MILKING SOOX. PRESSURE REGULATOR PRE-SET FOR 40 PSI. INSTALL USING STANDARD VALVE BOX INSTALLATION - SEE POLY TO PVC DETAIL ON THIS SHEET FOR BOX INSTALLATION INFO.

ALL DRIP STATIONS SHALL BE SET FOR 240 MIN. PER WEEK. 80 MIN 3 TIMES PER WEEK.

IF RUNOFF OCCURS USE MULTIPLE RUN TIMES WITH 2 HOUR SOAK PERIOD BETWEEN CYCLES. DO NOT REDUCE TOTAL NUMBER OF MINUTES PER WEEK.

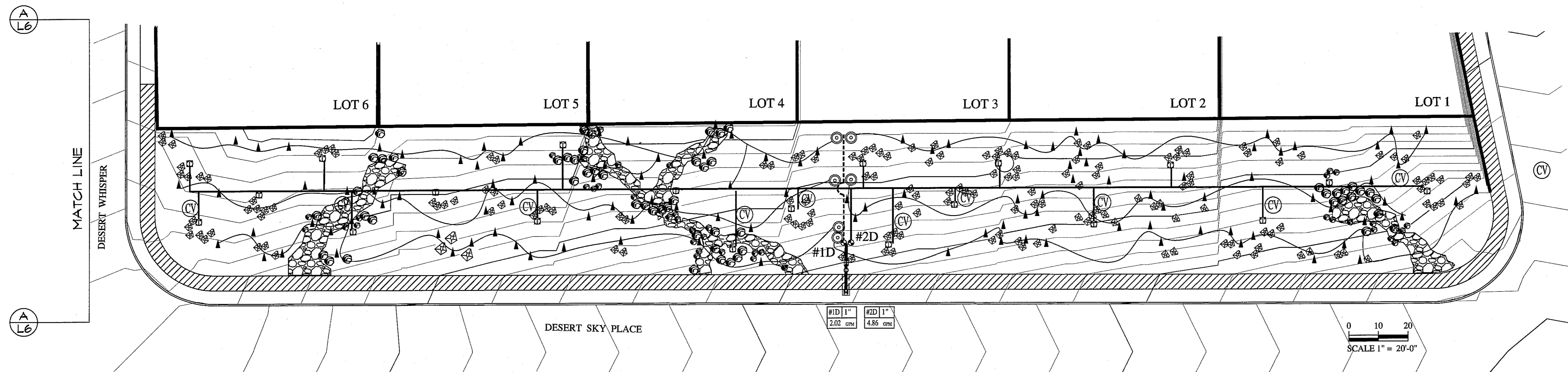


DRAWING KEY
SCALE: 1" = 300'-0"



NOTE: BALL VALVE IS ONLY REQUIRED ON LATERALS WITH MORE THAN ONE POLY CONNECTION.

POLY TO PVC PIPE CONNECTION
NOT TO SCALE

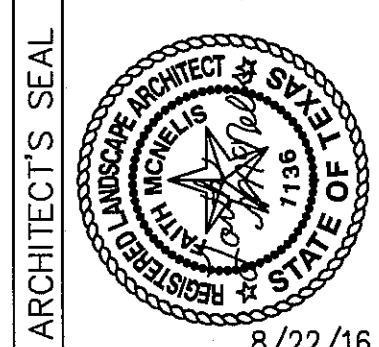


DOUBLE FRONTAGE LOTS - IRRIGATION
SCALE: 1" = 20'-0"

IRRIGATION IS REGULATED BY:
 PO BOX 13087
 AUSTIN, TEXAS 78711-3087
 TCEQ 512-239-6719
 CHAPTER 34, TEXAS WATER CODE
 IRRIGATOR'S LIC. #8947

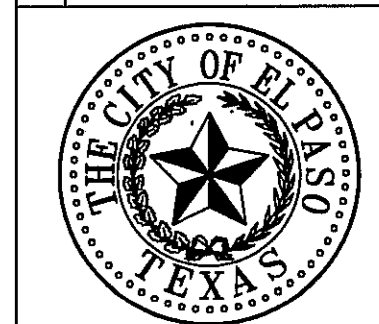


REVISIONS
 DATE
 LISA MC NEILIS
 LANDSCAPE ARCHITECT
 1700 FOXBORO
 LAS CRUCES, NEW MEXICO 88001
 (505) 621-5092



SCALE:
 Horizontal: N/A
 Vertical: N/A
 Contour Interval: N/A
 DATE: 8/22/16
 DESIGN BY: LM
 DRAWN BY: LM
 CHECKED BY: LM
 APPROVED BY: LM
 JOB No.

PROJECT TITLE
FRANKLIN HILLS UNIT 10
SUBDIVISION
 DOUBLE FRONTAGE LOTS
 EL PASO, TEXAS

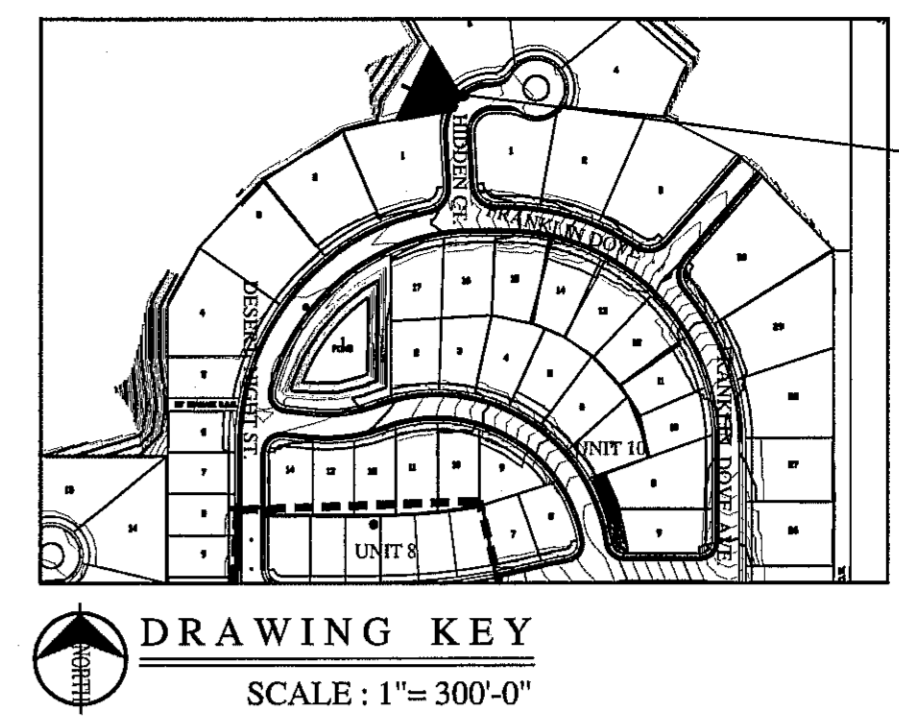


SHEET TITLE
L6
 DOUBLE FRONTAGE LOTS
 SHEET 6 OF 15

PARK MATERIAL LEGEND AND DETAIL KEY:

- FRANKLIN RED GRAVEL CRUSHER FINES 3" DEPTH 2' BELOW ALL CONCRETE SURFACES. USE NEED BARRIER. PROJECT TOTAL [298 SF] SEE DETAIL (D) ON SHEET L10.
- COMBINATION WROUGHT IRON / STONE FENCE. FIRST 20' OF LOTS 1 AND 6 ADJACENT PROPERTY LINES. USE ONLY STONE FOR REMAINING LENGTH OF PROPERTY LINES. SEE PLAN. COMBINATION FENCE PROJECT TOTAL [20 LF] SEE DETAIL (E) SHEET L10.
- COMBINATION WROUGHT IRON / 2' STONE FENCE PROPERTY LINE. TOTAL [118 LF] SEE DETAIL (C) SHEET L11.
- COMPACTED FRANKLIN RED GRAVEL CRUSHER FINES 4" DEPTH 2' BELOW ALL CONCRETE SURFACES. USE NEED BARRIER. PROJECT TOTAL [48 SF] SEE DETAIL (G) ON SHEET L10.
- SANTA ANA BERUDA GRASS. PROJECT TOTAL [1606 SF] TOP OF SOD 2" BELOW TOP OF SIDEWALK.
- OVERLOOK T1 CONCRETE WALKWAY. TOTAL [680 SF] SEE DETAIL (D) ON SHEET L10.
- 24" DIA. TRASH RECEPTACLE 84-32-F70 5-1 EMBEDMENT MOUNT ON 3" CONC. PAD. COLOR, SIDAN LNER COLOR, REDWOOD. TOTAL [1] INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE DETAIL (A) ON DETAIL SHEET L10.
- 6'-0" DIA. 54 SERIES BENCH-IN GROUND MOUNT. TOTAL [3] COLOR: SUDAN. INSTALL PER MANUFACTURER'S SPEC. SEE DETAIL (I) ON SHEET L11.
- 24" X 24" GOLDEN BROWN BOULDER. TOTAL - 7 SEE (H) ON DETAIL SHEET L11.
- 36" X 36" GOLDEN BROWN BOULDER. TOTAL - 3 SEE (J) ON DETAIL SHEET L11.
- 6" RECESSED AREA FOR WATER HARVESTING. PARKS AND RECREATION REPRESENTATIVE MUST APPROVE GRADING PRIOR TO INSTALLING SOD OR GRAVEL.
- PARK INFORMATION SIGN - LOCATION SHALL BE APPROVED BY PARKS DEPT REPRESENTATIVE. SEE DETAIL (A) ON SHEET L11.
- 6" X 12" CONCRETE HEADER CURB. PROJECT TOTAL [18] LF SEE DETAIL (L) ON SHEET L11.
- SUPERIOR PET WASTE ELIMINATOR STATION - SKU# E3 COLOR SHALL BE GREEN. WWW.PETWASTEELIMINATOR.COM. INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE DETAIL (N) ON DETAIL SHEET L11.

- PARKS DEPT. NOTES FOR PLANTING:**
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF CONTRACTOR.
 - TOPSOIL MATERIAL FOR PLANTING SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS, INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT WOULD BE TOXIC OR HARMFUL TO GROWTH.
 - CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
 - IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
 - THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIPER SIZE, AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS SPECIFIED.
 - EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL DIAMETER OF THE SHRUB, TWO TIMES GREATER THAN THE ROOT BALL FOR TREES. SCARIFY BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND.
 - CONTRACTOR WILL NOT PLANT MATERIAL SHOWN ON PLANS WHEN IT IS EVIDENT THAT FIELD CONDITIONS HAVE CHANGED SINCE PLANS WERE DRAWN. ANY CHANGES ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE DESIGNER BEFORE ANY PLANTING IS DONE IN THE AREA.
 - PLANT SUBSTITUTIONS WILL BE PERMITTED, REQUEST SUBSTITUTION IN WRITING GIVING REASONS FOR SUCH SUBSTITUTIONS.
 - TURF QUANTITY TAKE-OFF ARE THE RESPONSIBILITY OF THE CONTRACTOR.
 - TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SURFLAN. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
 - REMOVE ALL WIRE, STRINGS, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOTBALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
 - SEEDING AREAS SHOULD BE MAINTAINED UNTIL A FULL GROWTH OF WILD GRASS OR SEEDING MATERIAL IS ACHIEVED.
 - WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUND COVER).
 - ANY UNSUITABLE SOIL CONDITIONS MUST BE REMEDIATED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS, COARSE SANDS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12" AS REQUIRED FOR PROPER PLANTING AS PER "PARKS DESIGN AND CONSTRUCTION STANDARDS".



PROJECT AREA
THE
OVERLOOK

SEE PLANTING DETAILS ON SHEET L10
QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE

PLANT LEGEND/SCHEDULE CUL-DE-SAC A

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SPACING	QUANT.	SIZE	REMARKS
RY	⊕	RED YUCCA	HESPERALOE PARVIFLORA	5 GAL	4' OC	6	6' HT	DO NOT CUT
EB	⊕	EMU BUSH	EREMOPHILA MACULATA VALENTINE	5 GAL	8' OC	4	18" HT	PRUNE AFTER BLOOM IN SPRING.
YL	⊕	'NEW GOLD' LANTANA	LANTANA CAMERA 'NEW GOLD'	5 GAL	4' OC	5	6' HT	CUT BACK MID FEB.
HF	⊕	HAMELN FOUNTAIN GRASS	FENNESETUM ALOPECUROIDES 'HAMELN'	1 GAL	3' OC	4	18" HT	CUT MID FEB. ROUND TOP
BF	⊕	BLACKFOOT DAISY	MELAMPodium LEUCANTHUM	1 GAL	3' OC	6	18" HT	CUT MID FEB. DRIM BACK 6"
YB	⊕	YELLOW BELLS	TEGOMA STANS	5 GAL	3' OC	1	18" HT	CUT MID FEB.
CS	⊕	CLEVELAND SAGE	SALVIA CLEVELANDII	5 GAL	4' OC	2	18" HT	CUT TO 18" HT MID FEB.
ES	⊕	EVERGREEN SUMAC	RHUS VIRENS	5 GAL	5' OC	3	18" HT	O
RM	⊕	REGAL MIST	MULLEBERGIA CAPILLARIS 'REGAL MIST'	5 GAL	5' OC	6	18" HT	O
DS	⊕	DESERT SENNA	SENNA NEMOPHILA	5 GAL	5' OC	6	18" HT	O

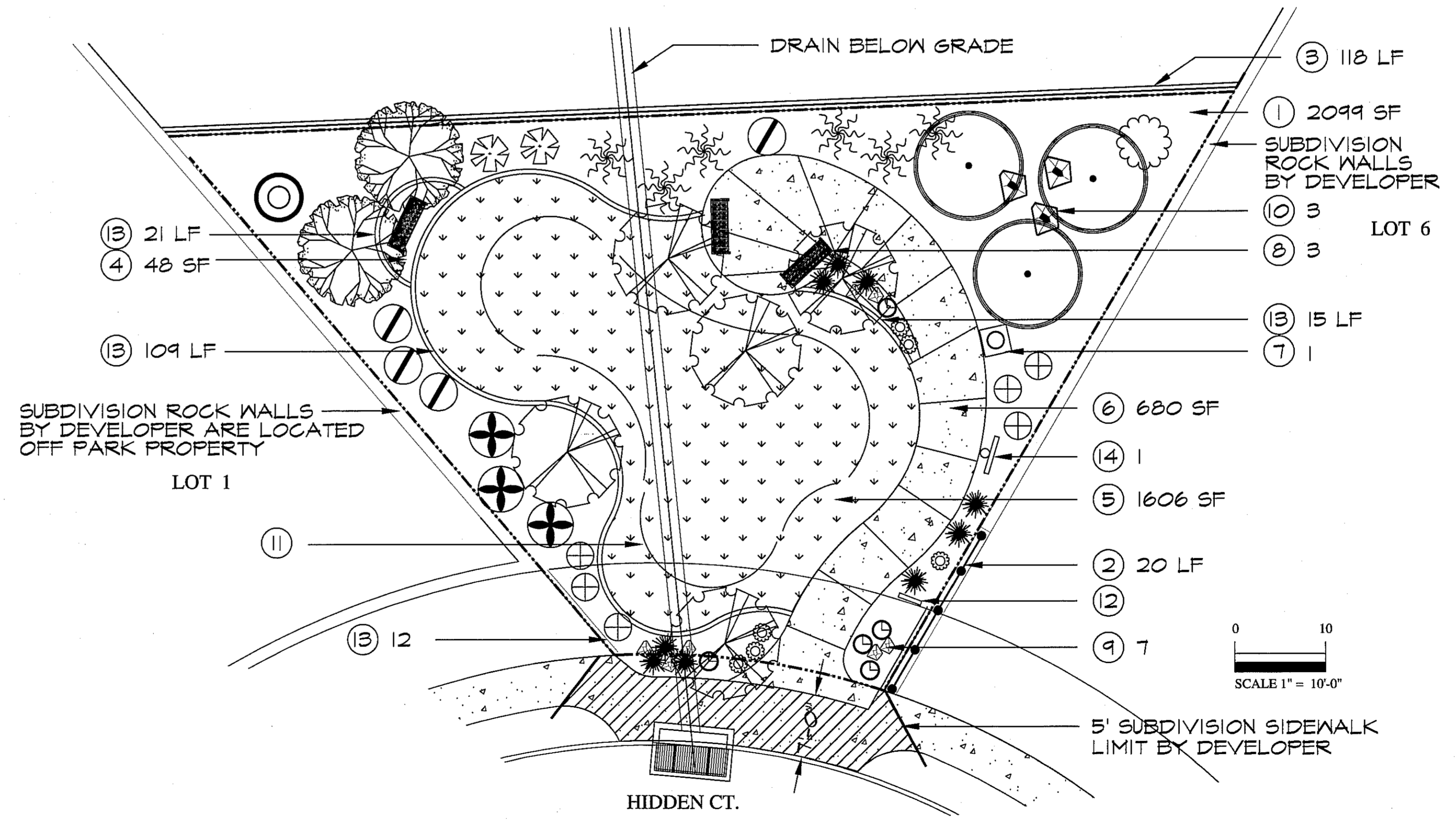
TREE LEGEND/SCHEDULE PROJECT TOTAL

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
MET	⊕	MAVERICK HONEY MESQUITE	PROSOPIS GLANDULOSA 'MAVERICK'	24" BOX	2' CAL-10HT-6' SPREAD	5	SINGLE-FULL
PVT	⊕	DESERT MUSEUM PALOVERDE	PARKINSONIA X 'DESERT MUSEUM'	24" BOX	2' CAL-10HT-6' SPREAD	3	SINGLE TRUNK-FULL
DWT	⊕	BUBBA DESERT WILLOW	CHILOPSIS LINEARIS 'BUBBA'	24" BOX	2' CAL-10HT-6' SPREAD	2	SINGLE TRUNK-FULL

PLANS MUST BE SUBMITTED TO TEXAS DEPT OF LICENSING AND REGULATION FOR COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS. EABPR JB6822835

ALL PARK IMPROVEMENTS SHALL COMPLY WITH ADAAGS AND TAS RULES AND REGULATIONS AS THEY APPLY.

TREE NOTES:
MINIMUM BRANCHING CLEARANCE IS 7' OVER SIDEWALK
DO NOT SELECT TREES WITH LOW FORK BRANCHING PATTERN. PRUNING TO MEET CLEARANCE REQUIREMENTS WILL DESTROY FORM OF TREES WITH THAT GROWTH HABIT.
MINIMUM HEIGHT 10'. CALIPER IS MEASURED AT 6" ABOVE TOP ROOT.



THE OVERLOOK - PLANTING AND MATERIALS
SCALE: 1" = 10' - 0"

PARKS DEPARTMENT
REVIEWED BY [Signature] DATE: 11/04/2014

REVISIONS

DATE

LISA MCNELLIS
LANDSCAPE ARCHITECT
1900 FOXBORO
LAS CRUCES, NEW MEXICO 88507
(575) 621-3052

ARCHITECT'S SEAL

PROFESSIONAL LANDSCAPE ARCHITECT & SURVEYOR
STATE OF TEXAS
8/22/16

SCALE:
Horizontal: N/A
Vertical: Contour Interval: N/A
DATE: 8/22/16
DESIGN BY: LM
DRAWN BY: LM
CHKD. BY: LM
APPVD. BY: LM
JOB No.

PROJECT TITLE

THE OVERLOOK AT FRANKLIN HILLS
FRANKLIN HILLS UNIT 10 SUBDIVISION
LOT 7 BLOCK 35 1818 HIDDEN COURT PL.
EL PASO, TEXAS
AREA: 4801 SQ. FT. - .106 ACRES

SHEET TITLE

L7
OVERLOOK LANDSCAPE

SHEET 7 OF 15

VALVE NUMBER AND SPRAY (S) OR DRIP (D) - #1F 1" VALVE SIZE
GALLONS PER MINUTE ON THIS VALVE - 107 8 NUMBER OF HEADS ON THIS VALVE

MATERIAL LEGEND AND DETAIL KEY:

- 1-1/4" PRESSURE MAIN PVC SCHEDULE 40, DEPTH 18" TO TOP OF PIPE. SEE DETAIL ① ON L12.
 - SPRAY HEAD LATERAL PVC CLASS 200. DEPTH 12", TO TOP OF PIPE. SEE DETAIL ① ON L12.
 - 3/4" DRIP LATERAL PVC CLASS 200. DEPTH 12", TO TOP OF PIPE. SEE DETAIL ① ON L12.
 - FIELD WIRING SHALL BE IN A SEPARATE TRENCH 5' OFFSET FROM MAIN LINE ON NORTH AND WEST SIDE WHERE POSSIBLE. PARKS REPRESENTATIVE MUST APPROVE WIRE LOCATION.
 - HUNTER PRO-SPRAY BODY - PROS-G6-PROS20 - CV. USE 1/4" GRAY PRO ADJUSTABLE NOZZLES. RADIUS SHOWN ON PLAN AT HEAD. USE LASCO SWING JOINTS. SEE DETAIL ④ ON L13.
 - DRIP EMITTER FOR TREES: RAINBIRD XERI-BIRD XBD-80 WITH FILTER USE 8 XB-20PG EMITTERS PER TREE. 21 GPM. LOCATE 3' AWAY ON WEST OR SOUTH SIDE OF TREE. SET IN EMITTER VALVE BOX. SEE DETAILS ⑤ AND ⑥ ON L12.
 - DRIP EMITTER FOR PLANTS: RAINBIRD XERI-BIRD XBD-80 WITH FILTER USE 1 XB-20PG OR 1 XB-10PG EMITTER PER PLANT. SEE SYMBOLS ON PLAN. SET IN EMITTER VALVE BOX. SEE DETAIL ⑤ ON L12.
 - 2 GPM DRIP EMITTER - DO NOT EXCEED 20' OF MICRO TUBE RAINBIRD PRESSURE COMPENSATING EMITTER XB-20. USE 1 EMITTER PER PLANT UNLESS OTHERWISE NOTED. PLACE ON UPHILL SIDE OF PLANT. ②9 GPM.
 - 1.6PH DRIP EMITTER - DO NOT EXCEED 20' OF MICRO TUBE RAINBIRD PRESSURE COMPENSATING EMITTER XB-20. USE 1 EMITTER PER PLANT UNLESS OTHERWISE NOTED. PLACE ON UPHILL SIDE OF PLANT. ②7 GPM.
 - ELECTRIC REMOTE VALVE: HEATHERMATIC 8202GR-10 AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAILS ① AND ② ON L12 AND ③ ON L13.
 - ELECTRIC REMOTE VALVE FOR DRIP: HEATHERMATIC 8202GR-10 AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAIL ① AND ② ON L12 AND ③ ON L13.
 - ISOLATION GATE VALVE IN LOCKING VALVE BOX. USE STANDARD VALVE BOX DETAILS. SEE DETAIL ④ ON L12.
 - BUCKNER 1" QUICK COUPLER - DOUBLE WAS WITH LASCO SNAP LOK WITH MALE BRASS STABILIZER ELBOW WITH CUT OFF. TO BE SET IN 12"x14" LOCKING VALVE BOX. SEE DETAIL ④ ON L13.
 - 1" METER LOCATION ON THIS PLAN IS APPROXIMATE. FLOW: 37 GPM DO NOT SET IN SIDEWALK.
 - BACKFLOW: FEBCO REDUCED PRESSURE 825Y 1". USE ASGE 1060- CLASS 1 ENCLOSURE. ELEC. HEAT. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO PARKS DEPT. REQUIREMENTS. INSPECTION PORTS MUST BE 2' AWAY FROM THE WALL. SEE DETAIL ④ ON L13.
 - RAINBIRD ESP-125AT SATELLITE CONTROLLER IN LOCKING STRONGBOX STAINLESS STEEL UNIT SB-2455 WITH PEDESTAL. SEE DETAILS ④ ON L13 AND ⑤ ON L14.
 - RAIN SENSOR - RAINBIRD RES-BEH MOUNTED ON POLE. SEE DETAIL ⑥ ON L14.
 - ZURN WILKINS 500XL PRESSURE REGULATOR WITH SG OPTION. SEALED CAGE OPTION IF WATER PRESSURE IS ABOVE 100 PSI DOWNSTREAM OF BACKFLOW. SEE DETAIL ⑥ ON L14. SET TO 65 PSI.
- ALL COMPONENTS TO BE SET IN VALVE BOXES MUST CONFORM TO STANDARD INSTALLATION SEE DETAIL ④ ON L12.

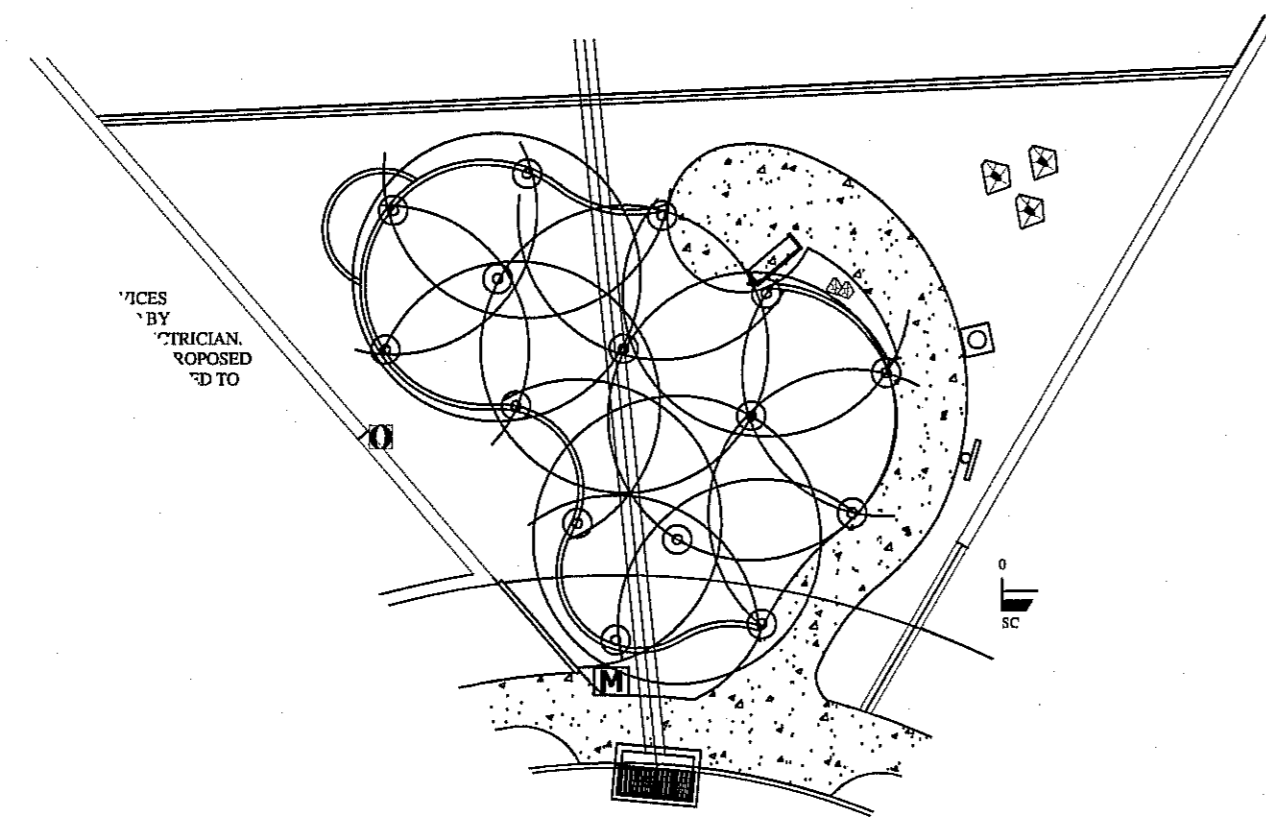
TURF IRRIGATION SYSTEM DESIGN CRITERIA

- WATER SOURCE**
- WATER MUST BE DELIVERED TO THE SITE AT SUFFICIENT PRESSURE AND FLOW TO PROVIDE MAXIMUM PERFORMANCE AS SHOWN BELOW.
PRESSURE REQUIREMENT - 64 PSI DESIGN PRESSURE
- 30 PSI AT BASE OF SPRAY HEAD
- MAX FLOW REQUIREMENT - 22 GPM MAXIMUM FLOW RATE**
- (DIFFERENCES IN AVAILABLE FLOW AND OR PRESSURE WILL REQUIRE DESIGN CHANGES) CONTRACTOR MUST VERIFY
- HEAD LAY-OUT**
- ROTOR HEAD LAY-OUT AND SPACING IS BASED ON TRIANGULAR LAYOUT. DIAMETER OF THE HUNTER PROSPRAY20 WITH NOZZLE #11A @ 30 PSI IS 17"X14.5" @ 15.3' HEAD SPACING X .266 FOR TRIANGULAR LAYOUT- 13.25' FOR LATERAL SPACING. ADJUSTED SPACING IS SHOWN AT EDGES OF TURF AND CONCRETE EDGING IN GENERAL. HEAD SPACING IS AS FOLLOWS:
HEAD SPACING = 15', LATERAL SPACING = 13'
 - HEAD AND LATERAL SPACING WILL VARY WITH DIMENSIONS OF TURF. ADJUSTED SPACINGS WILL BE NECESSARY. HEAD SHALL BE SET BACK FROM PAVING TO PREVENT SPRAY ONTO SIDEWALKS.
- PERFORMANCE STATISTICS**
- THE FOLLOWING PERFORMANCE STATISTICS WERE CALCULATED PER PLAN. CHANGES IN OPERATING PRESSURE, HEAD SPACING AND OR NOZZLE SELECTION WILL EFFECT RESULTS.
RUN TIME FOR 1.2" OF WATER - POP UP ZONES: 30 MIN PER WEEK USING TRIANGULAR SPACING METHOD
- VALVES #1 AND #2 POP UP SPRAY EQUILATERAL TRIANGULAR SPACING
4.8 X 16.25 = 462 = 2.37 ' / HR
15" X .266 = 194.25
VALVE #1 AND #2 POP UP SPRAY - TOTAL AREA METHOD
43.2 X 16.25 = 4158 = 2.6 ' / HR
15' x 15'

PRECIPITATION SCHEDULE									
VALVE #	VALVE SIZE	TOTAL GPM	HUNTER PRECIP. RATE	CALCULATED PRECIP. RATE*	WATER REQUIREMENT	NOZZLE SIZE	# & TYPE OF HEADS	GPM PER HEAD	RUN TIME PER WEEK
1	1"	3.91	DRIP	N/A	VARIES	N/A	17 EM. BOXES	VARIES	180 MIN
2	1.25"	20	1.85 IN/HR	2.37 IN/HR	1.2"/DAY	11A	7 SPRAY	VARIES	90 MIN
3	1.5"	22.4	1.85 IN/HR	2.37 IN/HR	1.2"/DAY	11A	8 SPRAY	VARIES	90 MIN

COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE CITY OF EL PASO PARKS AND REC. DEPT.

IF RUNOFF OCCURS THEN DURATION PER CYCLE SHALL BE REDUCED WITH 2 HOUR SOAK TIMES BETWEEN. MULTIPLE RUN TIMES SHALL BE USED IN ORDER TO DELIVER REQUIRED AMOUNT OF WATER. TOTAL RUN TIME MUST NOT BE REDUCED.



THE OVERLOOK - IRRIGATION-SPRAY PATTERN
SCALE: 1" = 20' - 0"

WATERING SCHEDULE									
STATION #	VALVE COMBINATION	RUN TIME PER WEEK		WATERING DAYS		DURATION	CLOCK SETTING		
		S	M	T	W			T	F
ID	X					X	X	60 MIN	12:00 AM
2S	X					X	X	30 MIN	12:00 AM
3S	X					X	X	30 MIN	12:31 AM
TOTAL RUN TIME PER DAY OF OPERATION - DRIP							60 MIN / 1 HOUR		
TOTAL RUN TIME PER DAY OF OPERATION - SPRAY							60 MIN / 1 HOUR		
TOTAL RUN TIME PER WEEK - SPRAY							180 MIN / 3 HOURS		

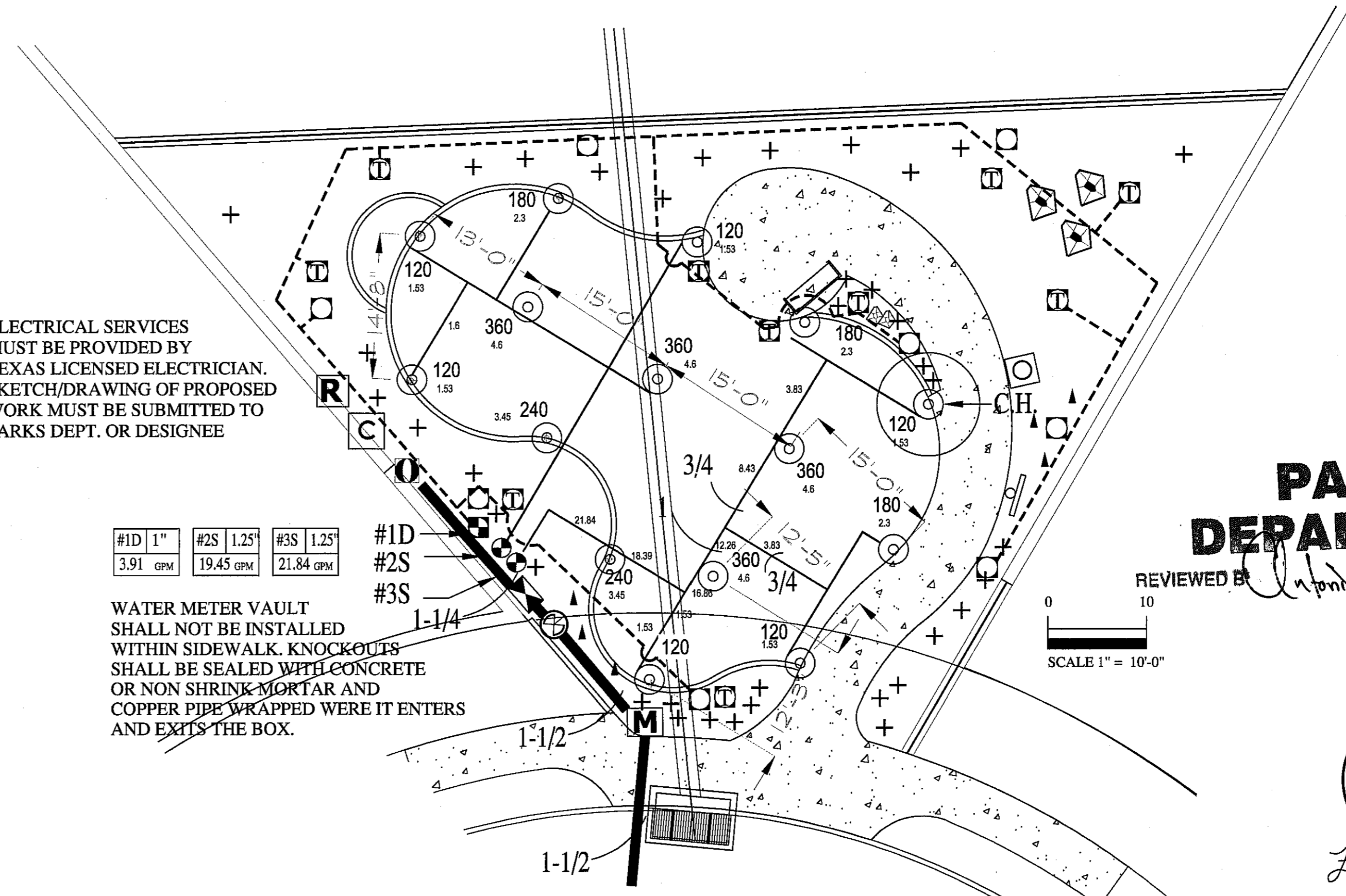
PRESSURE LOSS CALCULATION SHEET							
VALVE #3							
DESIGN PRESSURE 61.86 PSI							
CLASS 200	Length of Pipe (Feet)	Flow (Gal.)	Size (in.)	Pressure Loss Per 100 ft	Pressure Loss This Item	Accumulated Pressure Loss	
CLASS 200	11	1.53	3/4"	0.24	0.0264	0.0264	
CLASS 200	10	3.83	3/4"	0.88	0.0880	0.1144	
CLASS 200	10	8.43	3/4"	3.94	0.3940	0.5084	
CLASS 200	5	12.26	1"	2.64	0.1320	0.6404	
CLASS 200	5	16.86	1.25"	1.33	0.0665	0.7069	
CLASS 200	8	18.39	1.25"	1.61	0.1288	0.8357	
CLASS 200	13	21.84	1.25"	2.26	0.2938	1.1295	
Section Pressure Losses (Sub-Total)					1.1295		
COMPONENTS			Size (in.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss	
Section Valve			21.84	1.25	3.0000	4.1295	
Mainline sch 40			8	21.84	1.5	0.1096	4.2391
Backflow			0	0	0	0.0000	4.2391
Water Meter					11.0000	15.2391	
Copper Supply			45	21.84	1.5	2.8000	18.0391
Total Pressure Loss to the City Main					19.0246		
Minimum Required Head Pressure					30.0000		
Design Pressure - 61.86 PSI					61.8600		
Actual Head Pressure					42.8354		

STATIC PRESSURE-CITY MAIN FH 90 PSI AT FIRE HYDR. INTERSECTION OF FRANKLIN BLUFF AND FRANKLIN DOVE. ELEV 4435
ELEV AT OVERLOOK - 4500

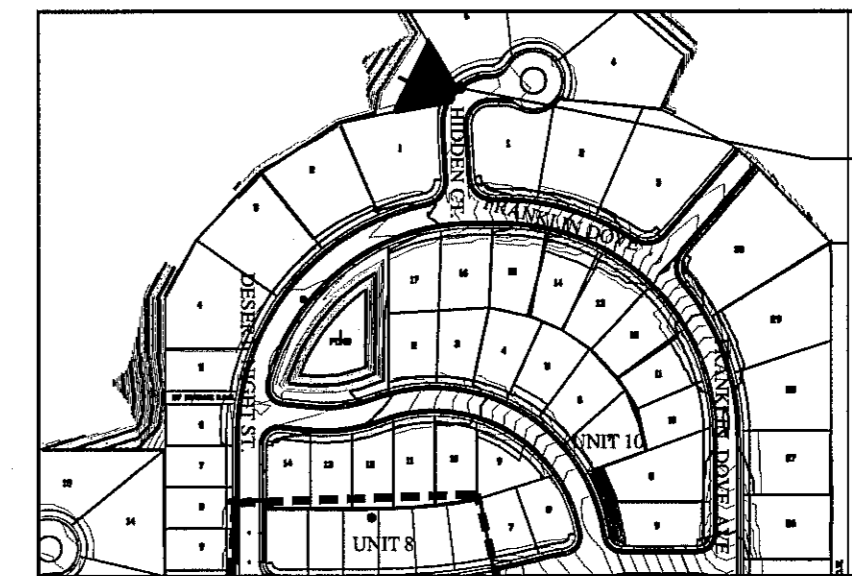
ELECTRICAL SERVICES MUST BE PROVIDED BY TEXAS LICENSED ELECTRICIAN. SKETCH/DRAWING OF PROPOSED WORK MUST BE SUBMITTED TO PARKS DEPT. OR DESIGNEE

#1D 1"	#2S 1.25"	#3S 1.25"
3.91 GPM	19.45 GPM	21.84 GPM

WATER METER VAULT SHALL NOT BE INSTALLED WITHIN SIDEWALK. KNOCKOUTS SHALL BE SEALED WITH CONCRETE OR NON SHRINK MORTAR AND COPPER PIPE WRAPPED WHERE IT ENTERS AND EXITS THE BOX.



THE OVERLOOK - IRRIGATION-PIPING
SCALE: 1" = 10' - 0"



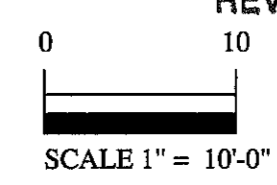
DRAWING KEY
SCALE: 1" = 300'-0"

IRRIGATION NOTES

- IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMPLISHING FULL COVERAGE IN ALL AREAS WITH SPECIFIED EQUIPMENT. ANY DISCREPANCIES IN THE PLAN SHOULD BE BROUGHT TO THE PROJECT MANAGER'S ATTENTION DURING CONSTRUCTION.
- ALL FITTINGS AND NECESSARY EQUIPMENT REQUIRED TO MAKE THIS IRRIGATION SYSTEM OPERATE PROPERLY AND TO COMPLY WITH LOCAL AND STATE CODES ARE INCIDENTAL TO THESE PLANS AND ARE THE CONTRACTOR'S RESPONSIBILITY.
- CONTRACTOR WILL BE HELD LIABLE FOR GAINING ACCESS UNDER ALL PAVEMENTS.
- SLEEVES SHOWN ON THE PLANS SHOULD BE VERIFIED FOR ACCESSIBILITY AND FEASIBILITY BEFORE BID IS MADE.
- THE CONTRACTOR SHALL LOCATE AND VERIFY EACH WATER TAP TO WHICH THE IRRIGATION SYSTEM WILL CONNECT. ALL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH THE STANDARDS OF THE CITY OF EL PASO AND THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS AND VALVES REQUIRED FOR THE FULL IMPLEMENTATION OF THE SYSTEM.
- THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO INITIATING WORK.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR INTERRUPTION IN SERVICE CAUSED BY HIS EXCAVATIONS AND/OR WORK.
- EACH CONTROLLER WILL HAVE AN INDEPENDENT COMMON WIRE LOOPED TO THE MAINS CONNECTED TO IT.
- REMOTE CONTROL VALVE WIRES ARE TO BE IN A SEPARATE TRENCH 5' FROM MAIN LINE ON NORTH OR WEST SIDE OF MAINLINE.
- ALL REMOTE CONTROL VALVE WIRES NEED TO BE LABELED AT VALVE W/ WEATHER (WATER) PROOF LABELS AND AT CONTROLLER WITH CORRESPONDING LABEL. (LETTER AND/OR NUMBER TAGS IN SEQUENTIAL ORDER WILL BE PROVIDED).
- SPLICING OF REMOTE CONTROL VALVE WIRES IS NOT ALLOWED BETWEEN CONTROLLER & VALVE BOX FOR WIRES MUST BE CONTINUOUS FROM CONTROLLER TO REMOTE CONTROL VALVE WITHOUT SPLICING.
- ALL ROTOR SPRINKLER HEADS SHALL BE ON STAINLESS STEEL RISERS WITH CHECK VALVE.
- CONTRACTOR SHALL PROVIDE SLEEVES FOR NEW IRRIGATION LINES CROSSING UNDER CONCRETE SIDEWALKS. SLEEVES SHALL BE 2 TIMES THE PIPE SIZE EXTENDED 24" BEYOND EDGE OF SURFACE, BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HEAVY DUTY PLASTIC.

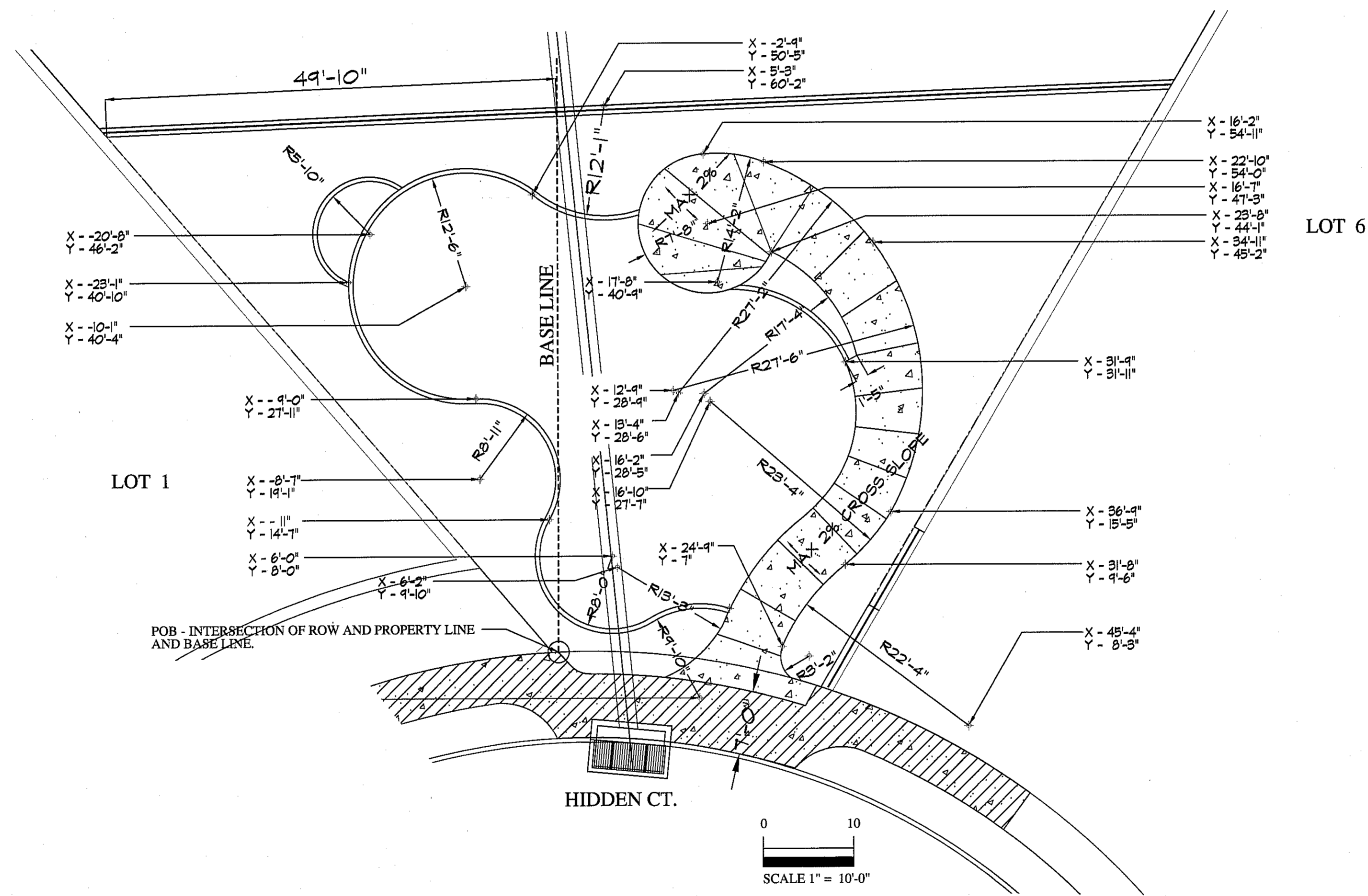


PARKS DEPARTMENT
REVIEWED BY: *Anthony...* 11/04/2016



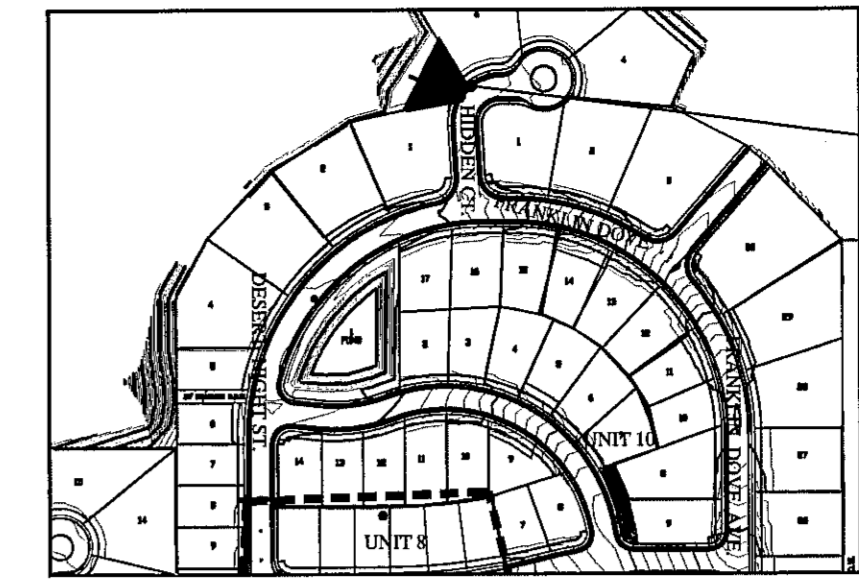
IRRIGATION IS REGULATED BY:
PO BOX 13087
AUSTIN, TEXAS 78711-3087
TCEQ 512-239-6719
CHAPTER 34, TEXAS WATER CODE
IRRIGATOR'S LIC. #8947

REVISIONS			
DATE			
ARCHITECT'S SEAL			
SCALE	Horizontal: 1" = 10'-0"	Vertical: 1" = 10'-0"	Contour Interval: 10'-0"
	DATE: 8/22/16	DESIGN BY: LM	DATE: 8/22/16
	DRAWN BY: LM	CHKD. BY: LM	APPROV. BY: LM
PROJECT TITLE	THE OVERLOOK AT FRANKLIN HILLS FRANKLIN HILLS UNIT 10 SUBDIVISION LOT 7 BLOCK 35 1319 HIDDEN COURT PL. EL PASO, TEXAS AREA: 4681 SQ. FT. - .106 ACRES		
SHEET TITLE			
	L8		
	OVERLOOK IRRIGATION		
	SHEET 8 OF 15		



THE OVERLOOK - LAYOUT PLAN

SCALE: 1" = 10'-0"

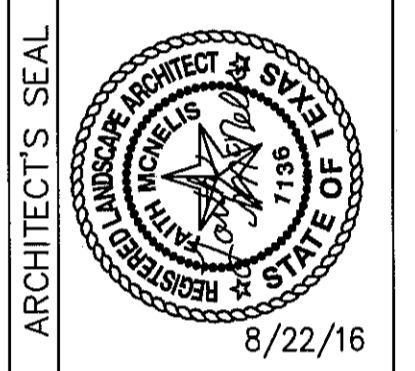


PROJECT AREA
THE
OVERLOOK

DRAWING KEY
SCALE: 1" = 300'-0"

REVISIONS	DATE

LISA MCNEELIS
LANDSCAPE ARCHITECT
1900 FOXBORO
LAS CRUCES, NEW MEXICO 88007
(505) 621-9092

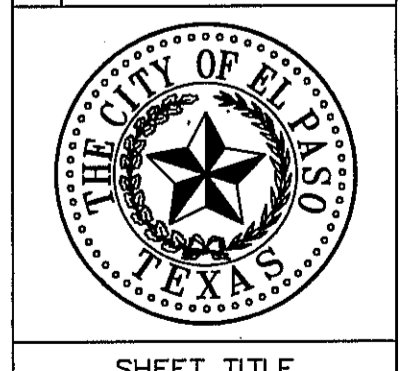


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DATE:	8/22/16
DESIGN BY:	LM
DRAWN BY:	LM
CHKD. BY:	LM
APPVD. BY:	LM
JOB No.	

THE OVERLOOK AT FRANKLIN HILLS
FRANKLIN HILLS UNIT 10 SUBDIVISION
LOT 77 BLOCK 35 019 HIDDEN COURT PL
EL PASO, TEXAS
AREA: 46071 SQ. FT. - .106 ACRES



Final Approval



SHEET TITLE
L9
OVERLOOK
LAYOUT
SHEET 9 OF 15

PARKS DEPARTMENT
REVIEWED BY: *[Signature]* 11/04/2014

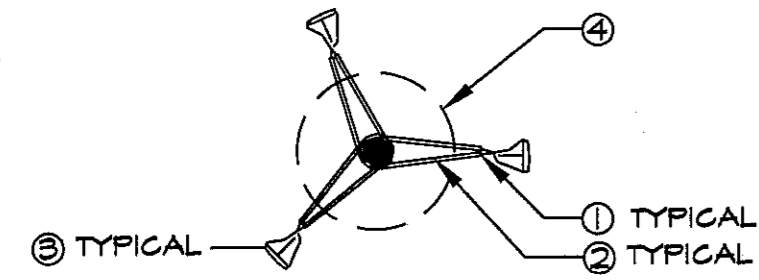
STAKING IS NOT REQUIRED BUT IF DEEMED NECESSARY THE STAKING DETAIL SHALL BE FOLLOWED. STAKING IS AT THE DISCRETION OF THE CONTRACTOR, LANDSCAPE ARCHITECT AND PARKS DEPT. BUT SHOULD TREES REQUIRE STAKING THE CONTRACTOR SHALL INCLUDE THE COST OF THE STAKING IN THE COST OF THE TREE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE STAKES AT END OF THE GUARANTEE PERIOD AT NO COST TO THE OWNER.

TREES THAT ARE DAMAGED DUE TO IMPROPER OR LACK OF STAKING MUST BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

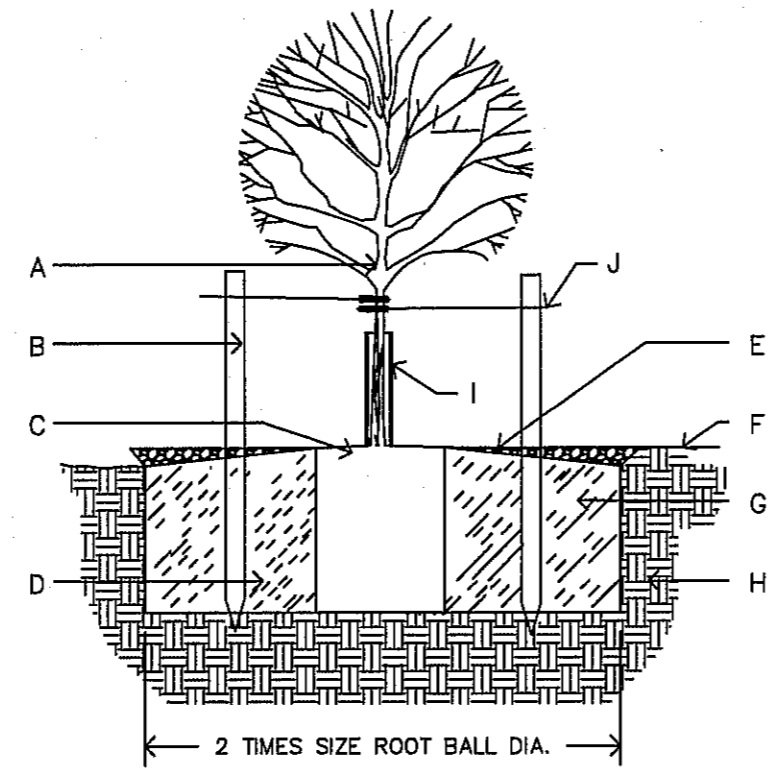
WIRES SHALL NOT BE TAUT BUT SHOULD ALLOW MOVEMENT OF 5 - 10 DEGREES FROM VERTICAL.

STAKES SHALL NOT BE DRIVEN INTO ROOTBALL OF TREES.



1. 2 STRAND TWIST 4 GAUGE WIRE
2. 1/2" RUBBER HOSE
3. 6" WOOD STAKE SET INTO GROUND 2'
4. ROOTBALL

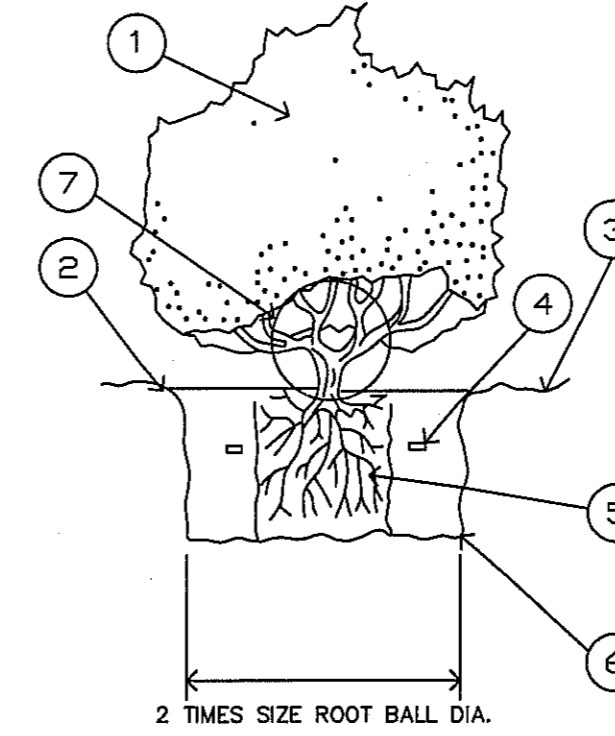
(A) TYPICAL TREE GUYING DETAIL - PLAN VIEW
NOT TO SCALE



- A. TREE
- B. STAKING NEEDED
- C. 4" SPACE BETWEEN MULCH AND TREE
- D. SLOPE ON SIDES OF PLANTING HOLE
- E. DEPTH OF BARK MULCH-SEE PLAN
- F. FINISH SOIL GRADE
- G. BACKFILL WITH EXISTING NATIVE SOIL
- H. UNDISTURBED SOIL
- I. USE EXPANDABLE TREE GUARDS TO PROTECT TREES PLANTED IN LAWN AREAS. GUARDS MUST BE APPROVED BY THE PARKS DEPT.
- J. TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE TO PROTECT TREE TRUNK FROM DAMAGE. WIRE TIES TO BE SET ON SAME TRUNK OR MAIN TRUNK.

(B) TREE PLANTING DETAIL - SECTION
NOT TO SCALE

1. KEEP SOIL BELOW ROOT BALL UNDISTURBED TO PREVENT TREE FROM SETTLING.
2. REMOVE ANY EXCESS SOIL FROM TOP OF ROOTBALL TO EXPOSE ROOT FLARE (WHERE TOP MOST ROOT EMERGES FROM THE TRUNK). PLANT WITH ROOT FLARE THAN FINISH GRADE 1'-2" HIGHER.
3. REMOVE CONTAINER AND CUT ANY ROOTS THAT ARE GIRLING THE CONTAINER. PRIOR TO SETTING TREE IN PLANTING HOLE (PII).
4. TAMP SOIL FIRMLY AROUND BASE OF ROOTBALL WITH FOOT PRESSURE.
5. AT TIME OF PLANTING, ONLY PRUNE CO-DOMINANT LEADERS (DOES NOT APPLY TO MULTI-TRUNK SPECIMENS), CROSSOVER LIMBS, AND DEAD OR BROKEN BRANCHES.
6. DO NOT ALLOW MULCH IN CONTACT WITH TREE TRUNK. KEEP AT LEAST 4" AWAY FROM TRUNK.
7. INSTALL TREE GUARD.
8. WHEN DONE, THOROUGHLY WATER TO ELIMINATE AIR POCKETS.
9. STAKING IS NOT REQUIRED - STAKE TREES ONLY IF TREE CANNOT STAND ALONE AND WITH APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT STAKE ALL TREES INDISCRIMINATELY. APPROVAL MUST BE OBTAINED TO STAKE TREES.
10. WITH APPROVAL, PROVIDE MIN. 3 STAKES/ TREE (TYP.) IN A TRIANGULAR PATTERN. STAKED INTO UNDISTURBED SOIL WITH CLARK'S TREE STAKE KIT OR APPROVED EQUAL. REMOVE AFTER ONE GROWING SEASON.
11. TOP OF ROOT BALL SHALL BE LEVEL WITH TOP OF MULCH OR BARK. MULCH SHALL BE FEATHERED TO FULL DEPTH.

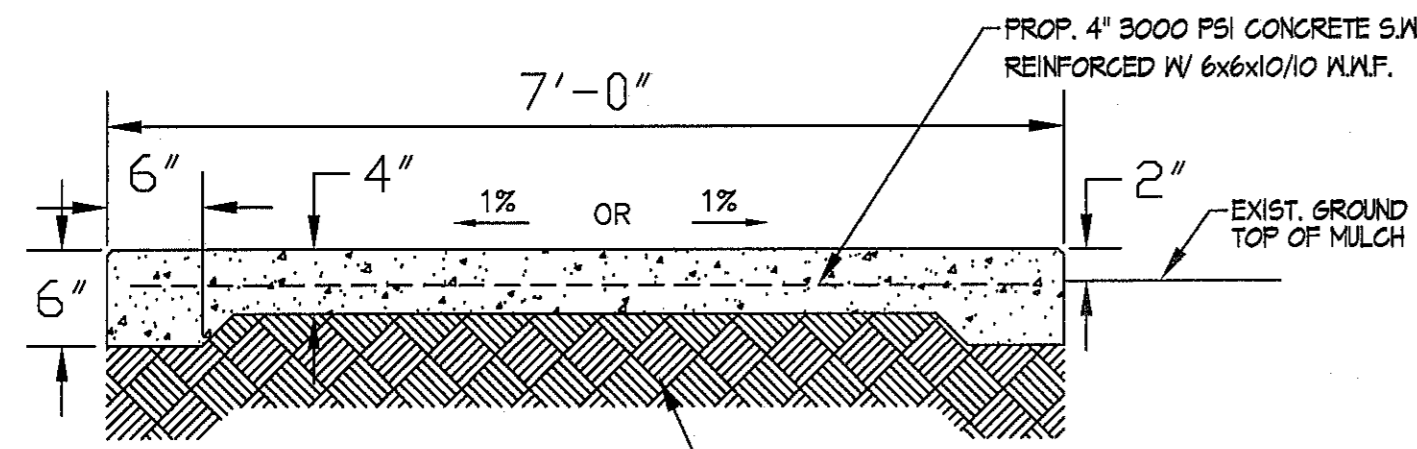


LEGEND

1. SHRUB OR VINE PER PLAN
2. EARTH WATERING BASIN (COVER WITH SPECIFIED MULCH ON PLAN).
3. FINISH GRADE
4. 7 GRAM PLANT TABLETS
1 GAL = 3, 5 GAL = 6, 10-15 GAL = 9
5. ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE) COVER 2" SPECIFIED MULCH.
6. UNDISTURBED NATIVE SOIL
7. DO NOT BURY PLANT BASE IN GRAVEL.

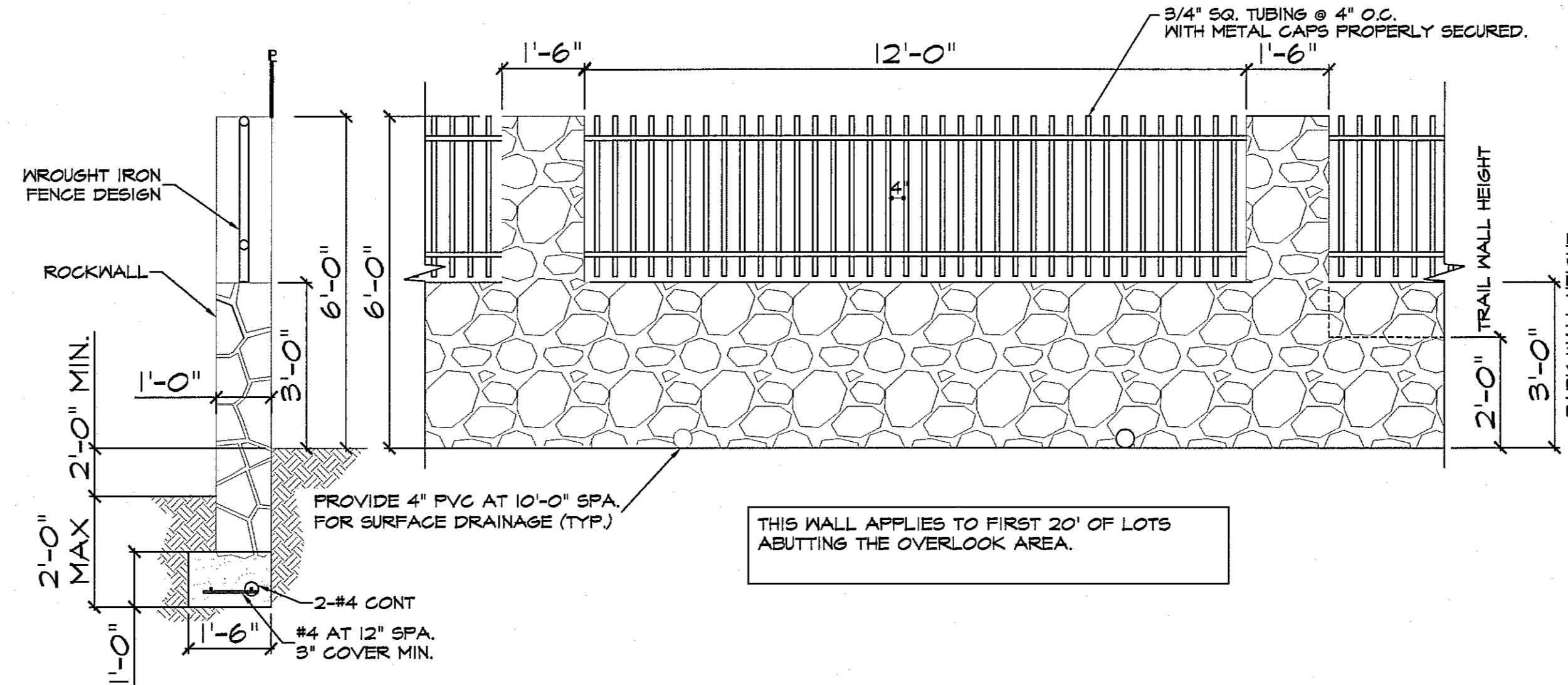
EXCAVATE AND REPLACE WITH SAME SOIL. REMOVE STONES 2" OR LARGER.

(C) SHRUB PLANTING DETAIL - SECTION
NOT TO SCALE

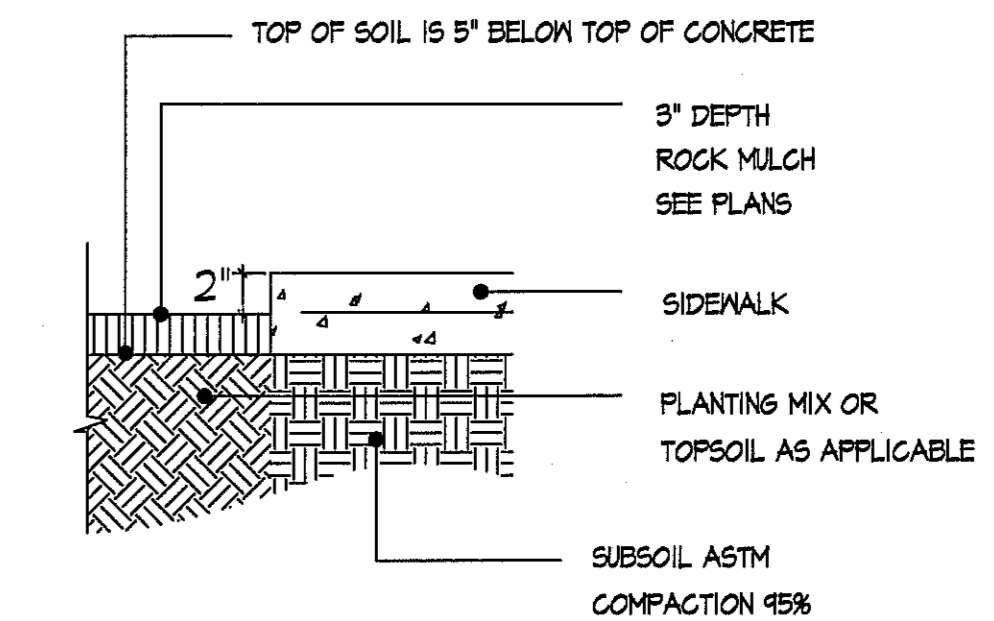


- NOTES:**
1. CONCRETE SHALL BE 3000 PSI MINIMUM.
 2. CONTROL JOINT REQUIRED AT 5' O.C. FOR SIDEWALKS. CONTROL JOINTS SHALL BE 1/8" THICK AND 1" DEEP.
 3. EXPANSION JOINT MATERIAL REQUIRED @ 20' O.C. FOR SIDEWALKS.
 4. DO NOT CROSS REINFORCEMENT THRU EXPANSION MATERIAL.
 5. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALKS MEET, EXISTING SIDEWALKS AND CURBS.

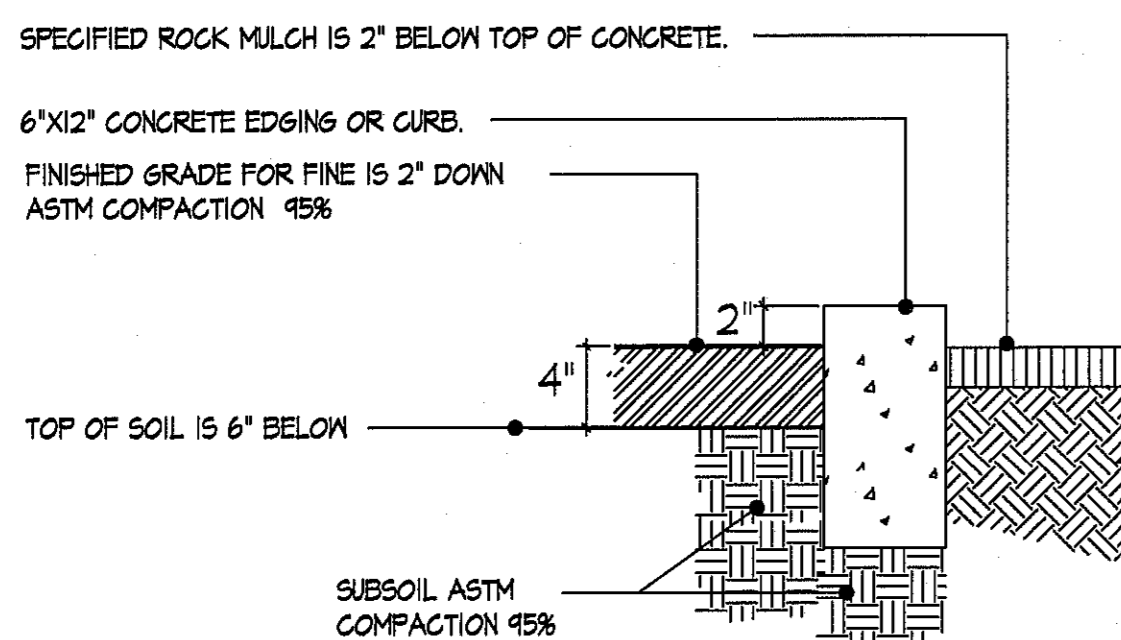
(D) TRAIL AND PARK CONCRETE SIDEWALK DETAIL - SECTION
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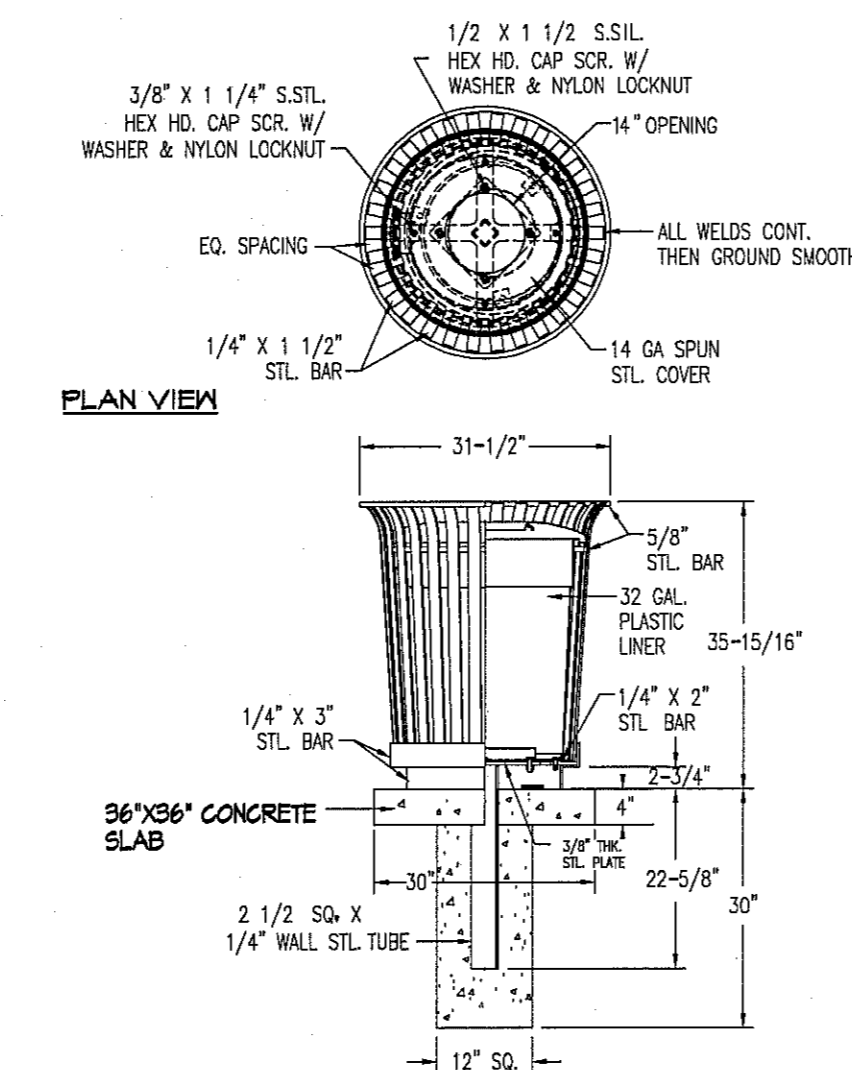
(E) WROUGHT IRON FENCE ON ROCK WALL ADJACENT TO LOTS
NOT TO SCALE



(F) GRAVEL MULCH AT PAVING DETAIL
NOT TO SCALE



(G) COMPACTED CRUSHER FINES BELOW BENCH
NOT TO SCALE

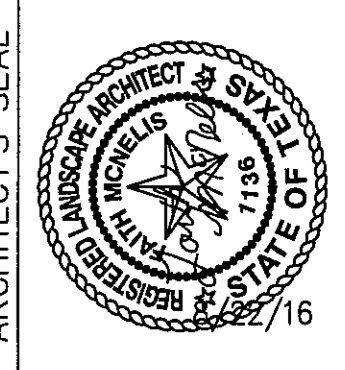


- NOTES**
1. ALL STL. MEMBERS COATED W/IZING RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
 2. ALL WELDS CONT. THEN GROUND SMOOTH.
 3. COLOR IS BROWN. MATCH WITH TABLE AND BENCH. TO BE APPROVED.
 4. 32 GAL CAPACITY WITH LINER AND FLAT LID W/ 14" OPENING. LID SHALL BE ABLE TO SECURE TO MAIN BODY OF RECEPTACLE.

(H) TRASH RECEPTACLE DETAIL - SECTION
NOT TO SCALE

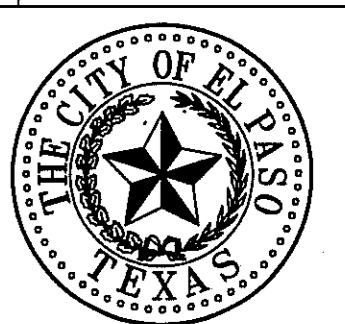


REVISIONS	DATE



SCALE	
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Vertical:	1/4" = 1'
Contour Interval:	1/4" = 1'
DATE:	8/22/16
DESIGN BY:	LM
DRAWN BY:	LM
CHKD. BY:	LM
APPVD. BY:	LM
JOB No.	

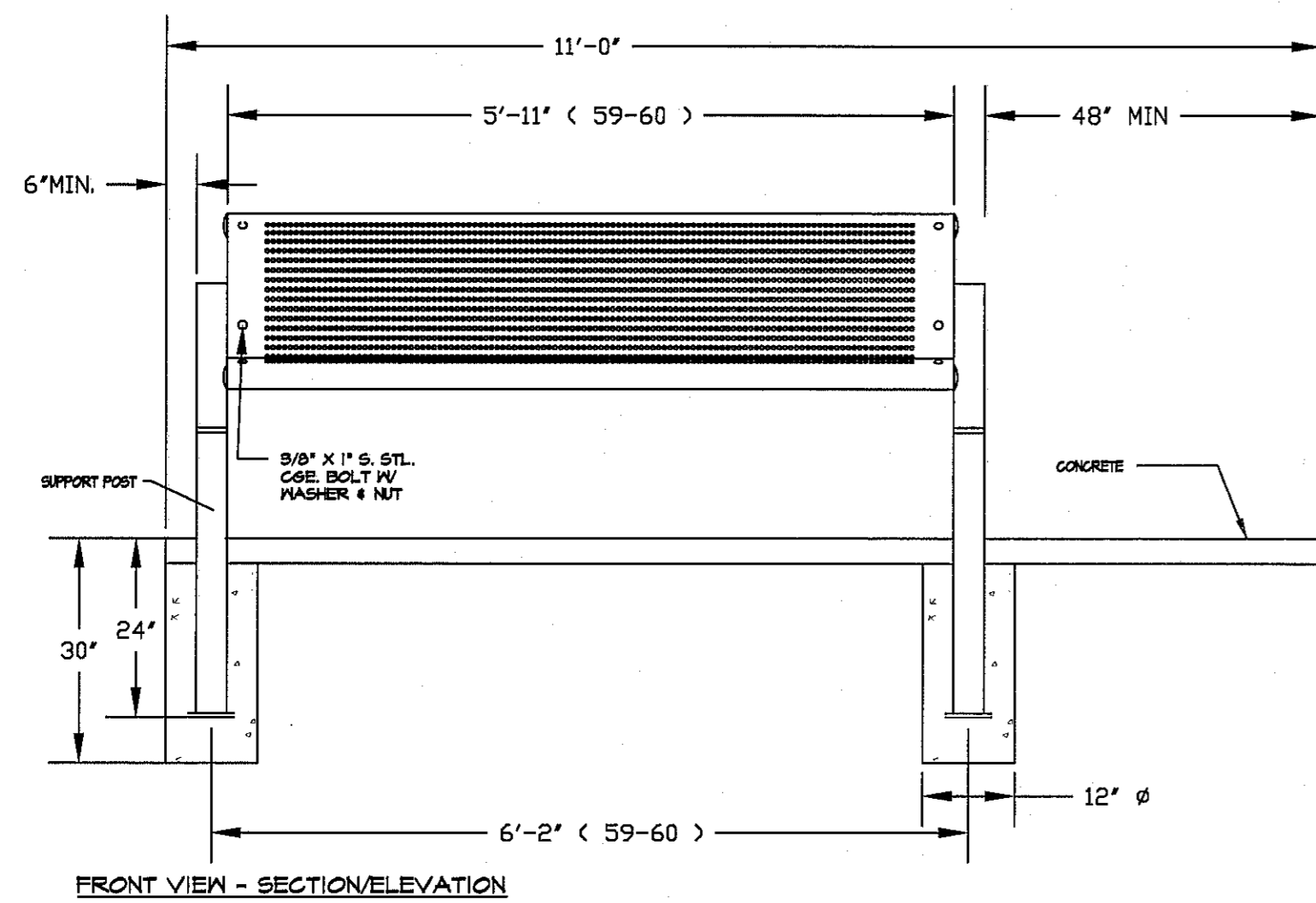
THE OVERLOOK AT FRANKLIN HILLS
FRANKLIN HILLS UNIT 10 SUBDIVISION
LOT 7 BLOCK 35 1319 HIDDEN COURT PL.
EL PASO, TEXAS
AREA: 4801 SQ. FT. - 106 ACRES



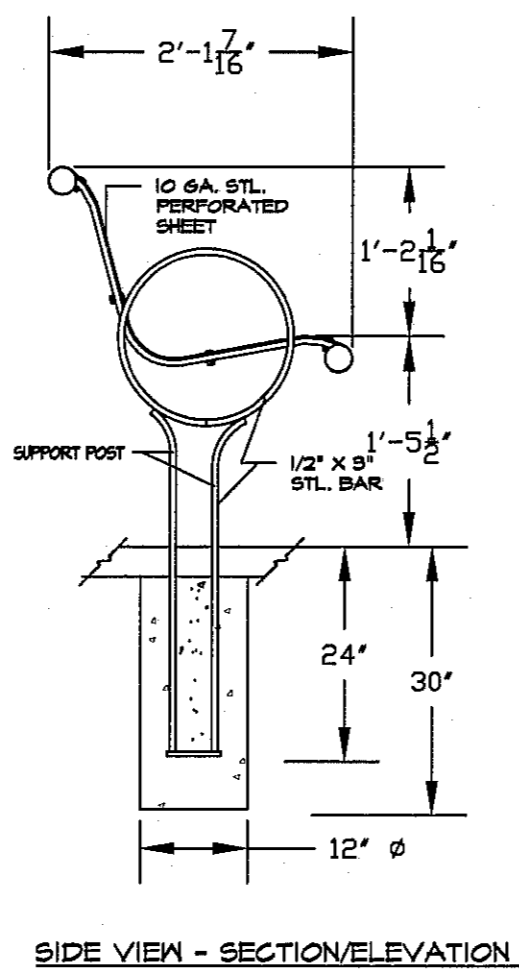
SHEET TITLE

L10
LANDSCAPE DETAILS
SHEET 10 OF 15

PARKS DEPARTMENT
REVIEWED BY *Anthony del. p. 11/04/2016*

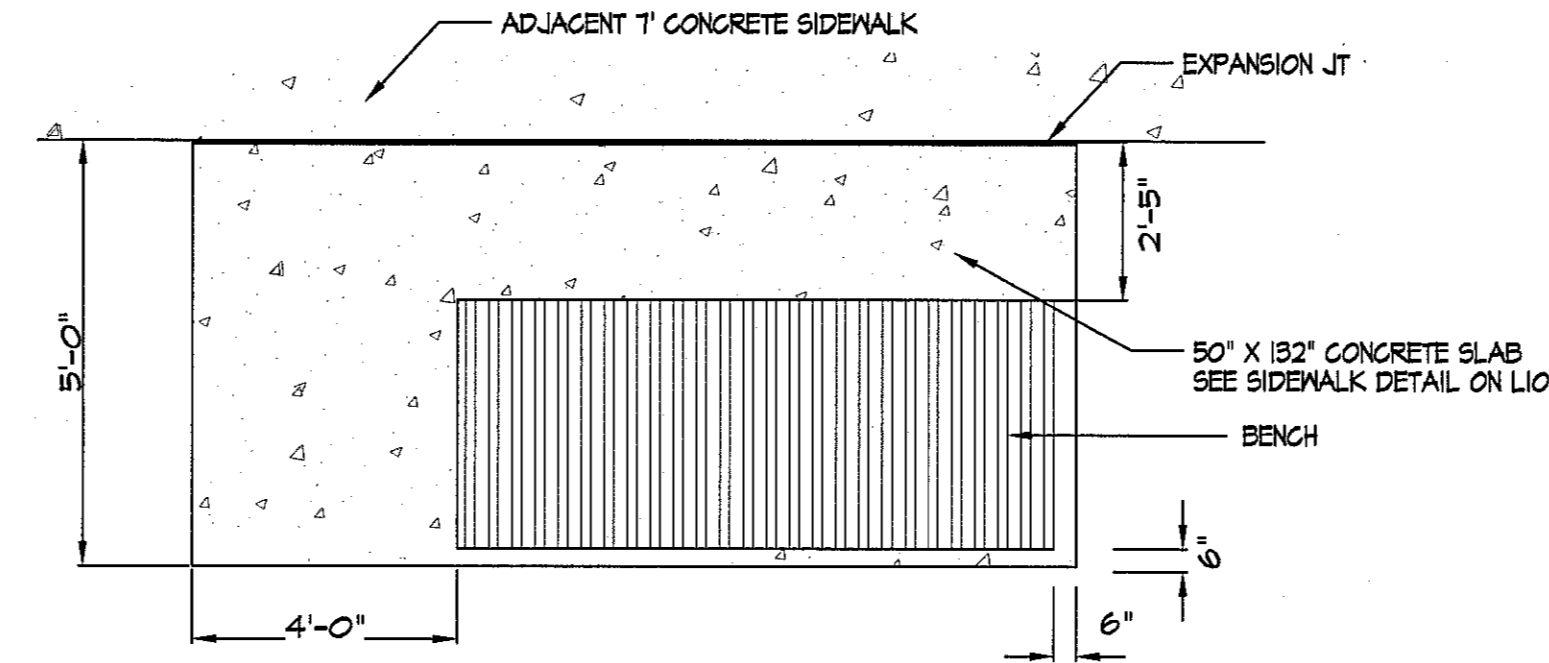


FRONT VIEW - SECTION/ELEVATION



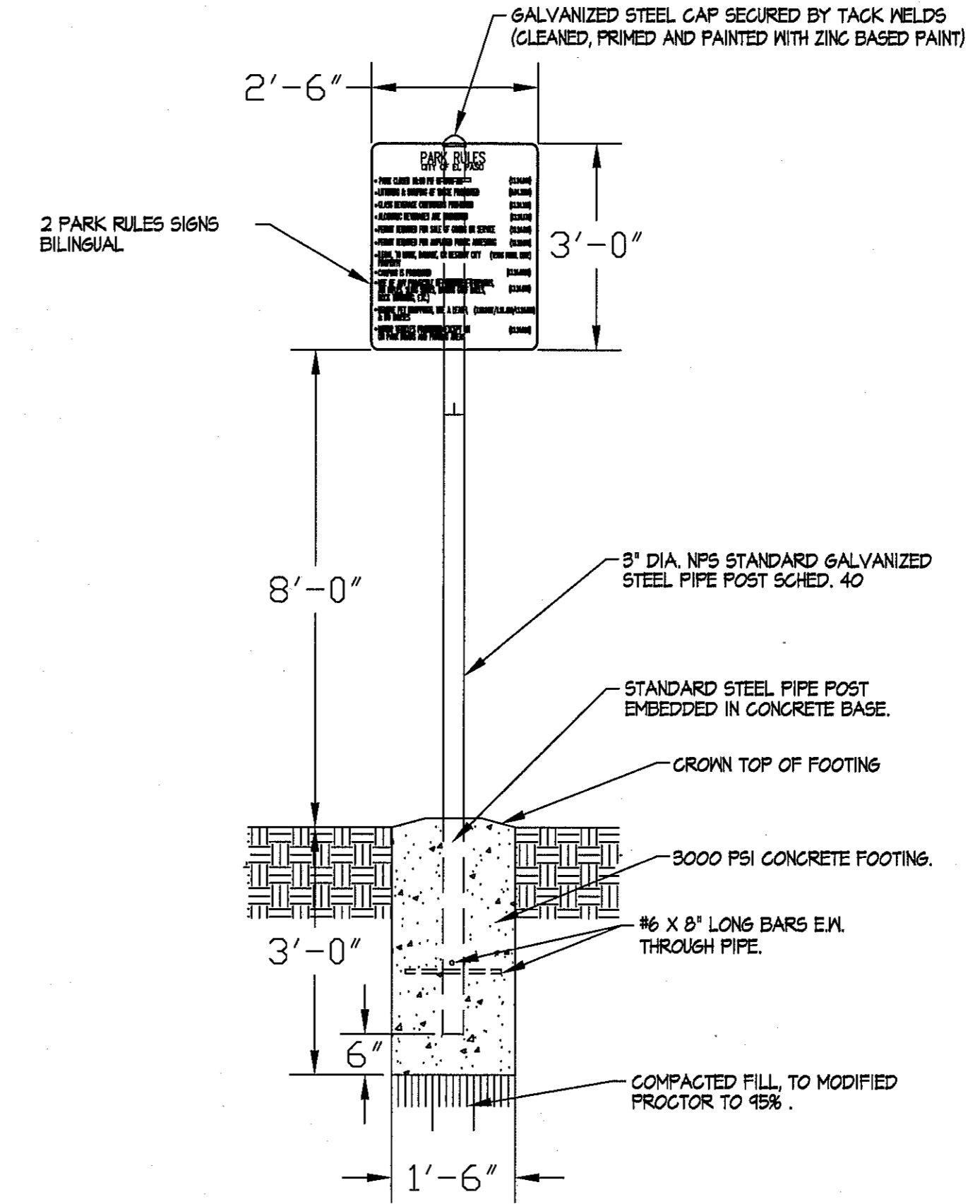
SIDE VIEW - SECTION/ELEVATION

I ADA BENCH DETAIL
NOT TO SCALE

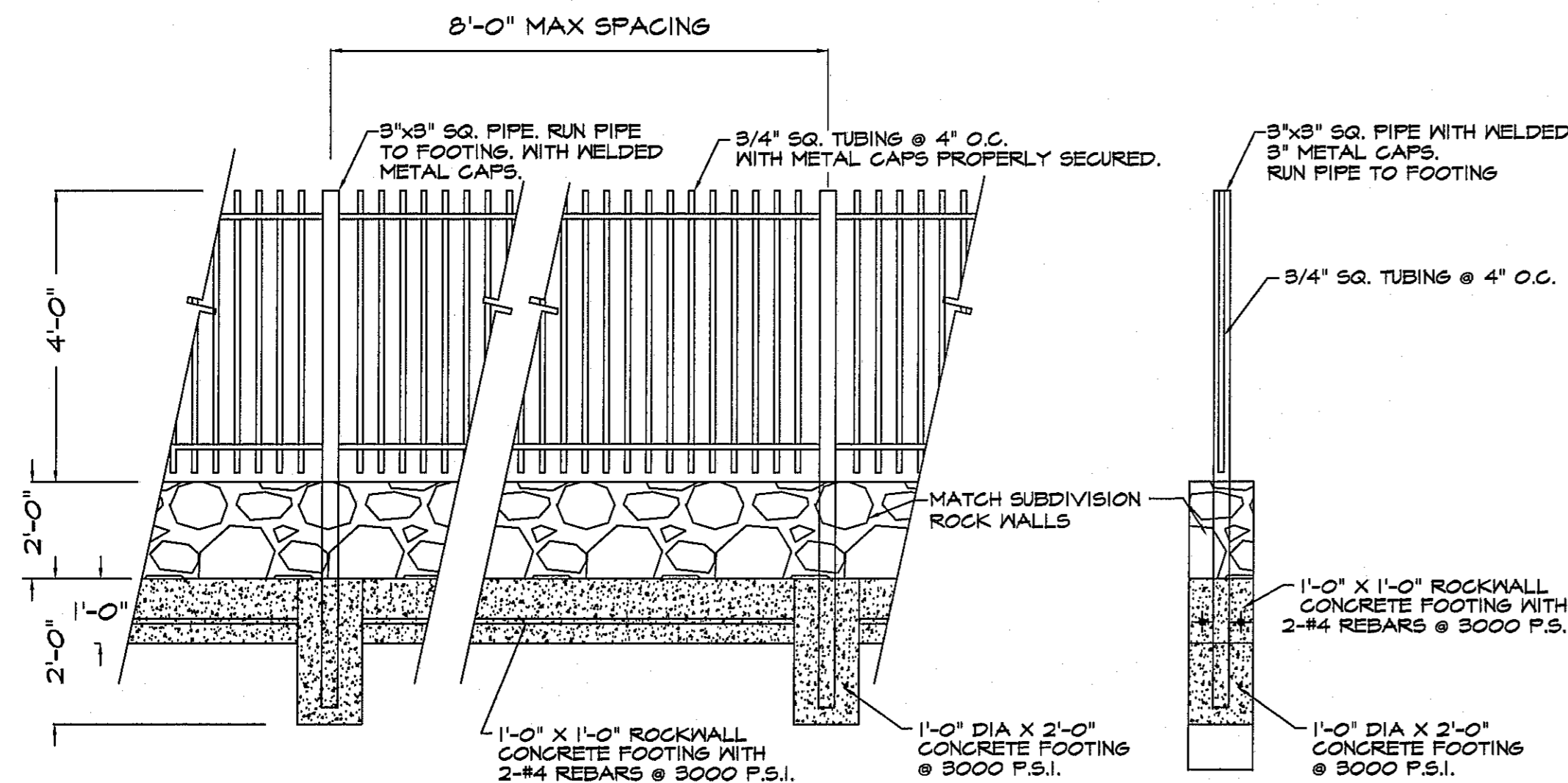


PLAN VIEW

NOTES: DUMOR 34 SERIES 6' BENCH - EMBEDMENT
1) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2) COLOR TO BE APPROVED BY PARKS.



J PARK INFORMATION SIGN
NOT TO SCALE



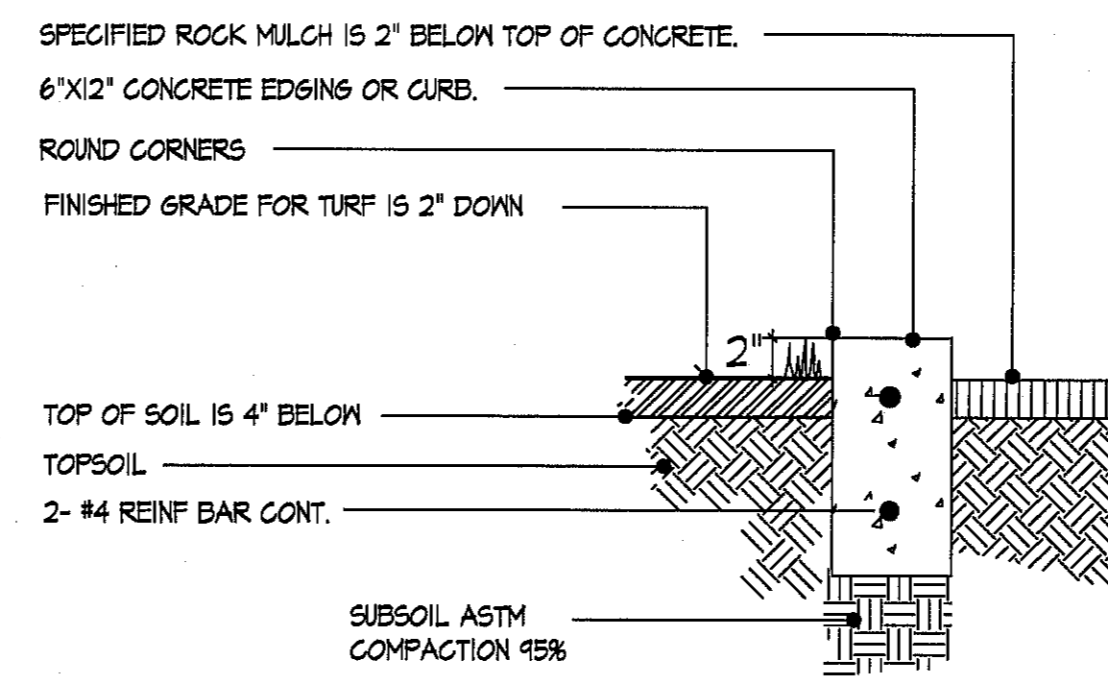
WROUGHT IRON FENCE NOTES:

1. PROVIDE FULL WELDS AT ALL PICKETS, TOP AND BOTTOM RAILS, ALL POST AND RAIL CONNECTIONS AND WHERE TOP RAIL DESIGN ABUTTS PICKET OR RAIL.
2. FENCE COMPONENTS AND FIELD REPAIRS SHALL BE SHOP PRIMED (1) COAT AND PAINTED FINISH (2) COATS EXTERIOR OIL BASED, COLOR #B028-3 ST. AUGUSTINE, AS MANUFACTURED BY PITTSBURGH PAINTS, OR APPROVED EQUAL.

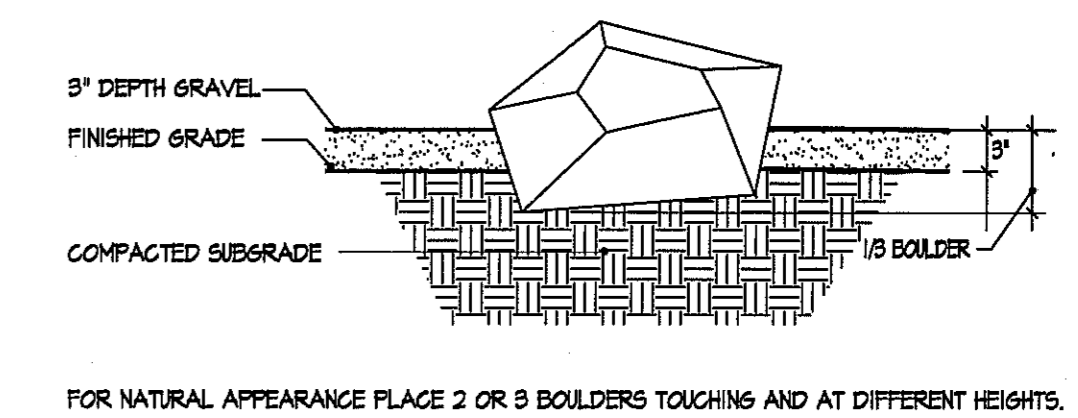
ROCKWALL NOTES:

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER.
2. MORTAR SHALL BE TYPE "S" 1800 P.S.I. AS PER ASTM C270-73. MORTAR SHALL CONSIST BY VOLUME OF 1 PART PORTLAND CEMENT, 3 1/2 PARTS OF CLEAN, HARD, DURABLE SAND AND 1/4 PART (MORTAR) LIME THOROUGHLY MIXED WITH WATER.
3. ROCKWALL MORTAR JOINTS SHALL NOT EXCEED 3/4" TO 1 1/4".
4. STONE SHALL BE CLEANED, FREE OF DIRT PRIOR TO INSTALLATION.
5. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.

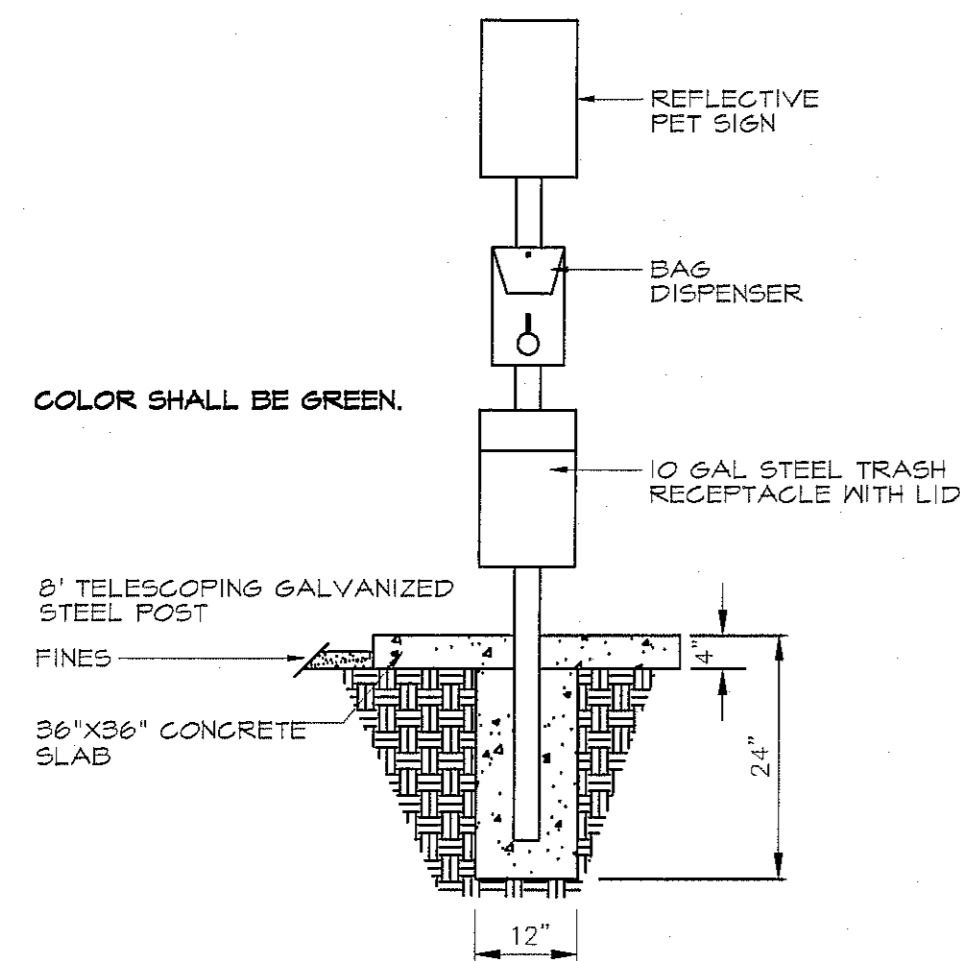
K COMBINATION ROCK WALL/WROUGHT IRON FENCE
NOT TO SCALE



L CONCRETE HEADER CURB
NOT TO SCALE



M BOULDER PLACEMENT
NOT TO SCALE



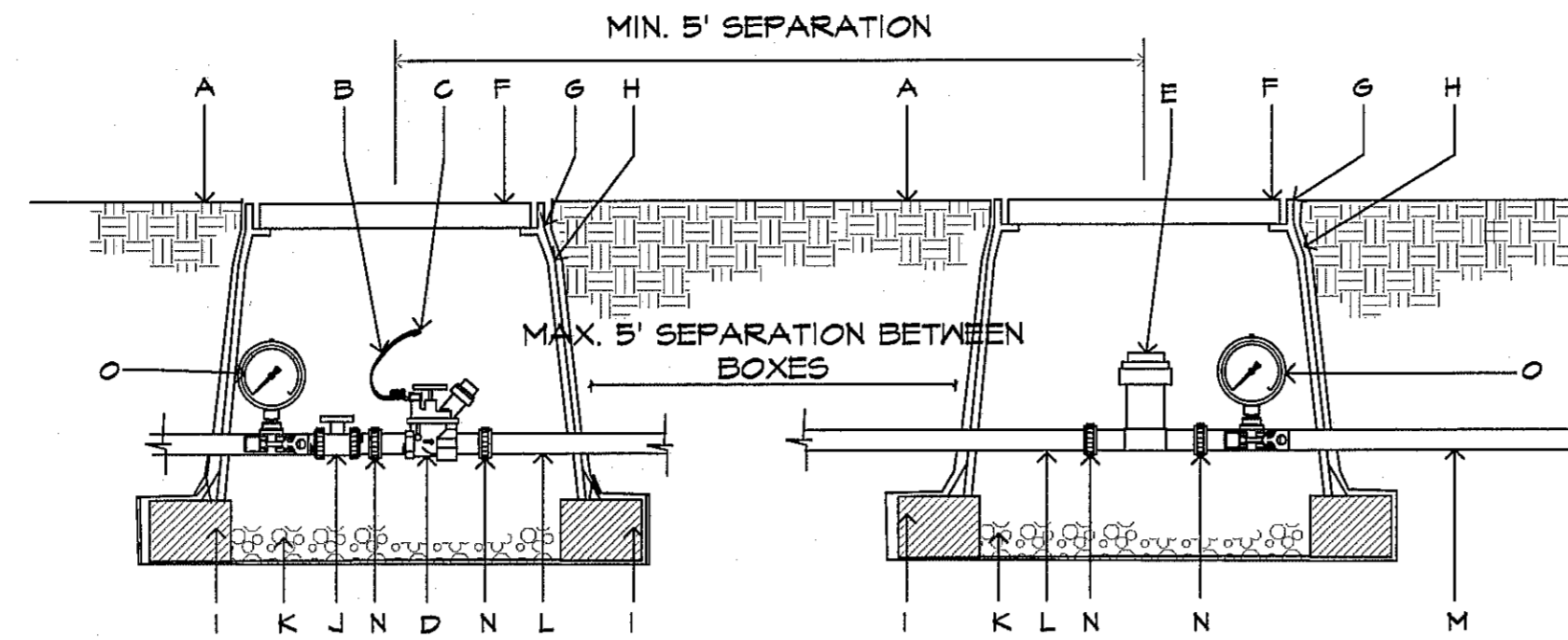
N PET WASTE STATION
NOT TO SCALE



PARKS DEPARTMENT
REVIEWED BY *[Signature]* 11/04/2014

REVISIONS	DATE	ARCHITECT'S SEAL	SCALE	PROJECT TITLE
			Vertical: N/A Horizontal: N/A Contour Interval: N/A	THE OVERLOOK AT FRANKLIN HILLS FRANKLIN HILLS UNIT 10 SUBDIVISION LOT 7 BLOCK 35 1319 HIDDEN COURT PL EL PASO, TEXAS AREA: 4601 SQ. FT. - .106 ACRES
			DATE: 8/22/16 DESIGN BY: LM DRAWN BY: LM CHKD. BY: LM APPVD. BY: LM JOB No.	PARKS DEPARTMENT SHEET TITLE L11 LANDSCAPE DETAILS SHEET 11 OF 15

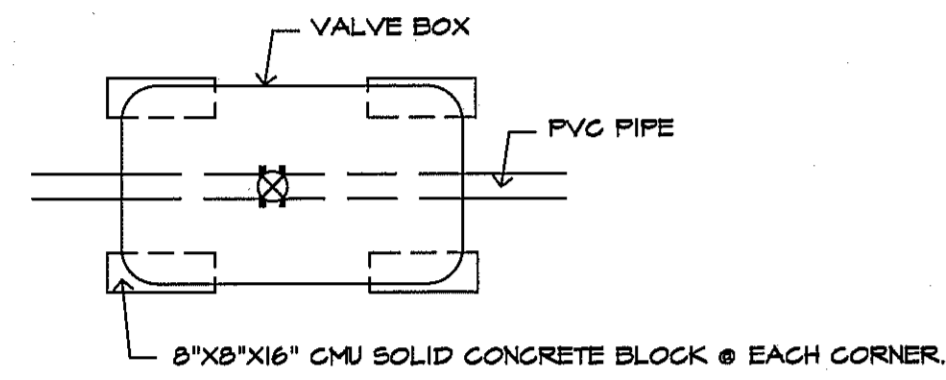
A. SERENO TRAIL - DO NOT USE PRESSURE REGULATING BASKET FILTER
 B. SERENO PARL - USE PRESSURE REGULATING BASKET FILTER



NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTREAM OF BALL VALVE AND ANOTHER DOWNSTREAM OF BASKET FILTER. PROVIDE 5' SEPARATION BETWEEN BOXES. IF SPACE IS NOT AVAILABLE, PROVIDE A MIN. 5' SEPARATION AT CENTER LINES OF BOXES. SET GAGES HORIZONTAL TO BE READABLE FROM ABOVE.

- A. FINISH GRADE.
- B. 24" WIRE LOOP.
- C. DRY SPLICE CONNECTOR OR EQUAL.
- D. AUTOMATIC VALVE. SEE IRRIGATION LEGEND.
- E. RAINBIRD PRESSURE BASKET FILTER STRAINER SHALL BE INSTALLED TO PROVIDE ACCESS FOR MAINTENANCE AND REPLACEMENT AND PRESSURE REGULATION FOR DRIP IRR.
- F. LOCKING VALVE BOX COVER FLAT LID WITH BOLT.
- G. CARSON PRODUCTS INC. 1419-18(B) VALVE BOX W/BOLT DOWN COVER (COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY).
- H. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX AND BLOCKS TAPE TO ALL INLET & OUTLET PIPE WITH 3M HEAVY DUTY PLASTIC TAPE.
- I. 8"X8"X16" CMU SOLID CONCRETE BLOCK @ EACH CORNER.
- J. BALL VALVE, INCLUDED IN CONTROL ZONE KIT, SEE IRRIGATION LEGEND.
- K. 4" LAYER OF 3/8" WASHED PEA GRAVEL.
- L. PVC PIPE SIZED PER PLAN WITH WELD ON THREADED FITTINGS ON EACH END.
- M. LATERAL LINE.
- N. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- O. HORIZONTAL HYGIENIC PRESSURE GAUGE

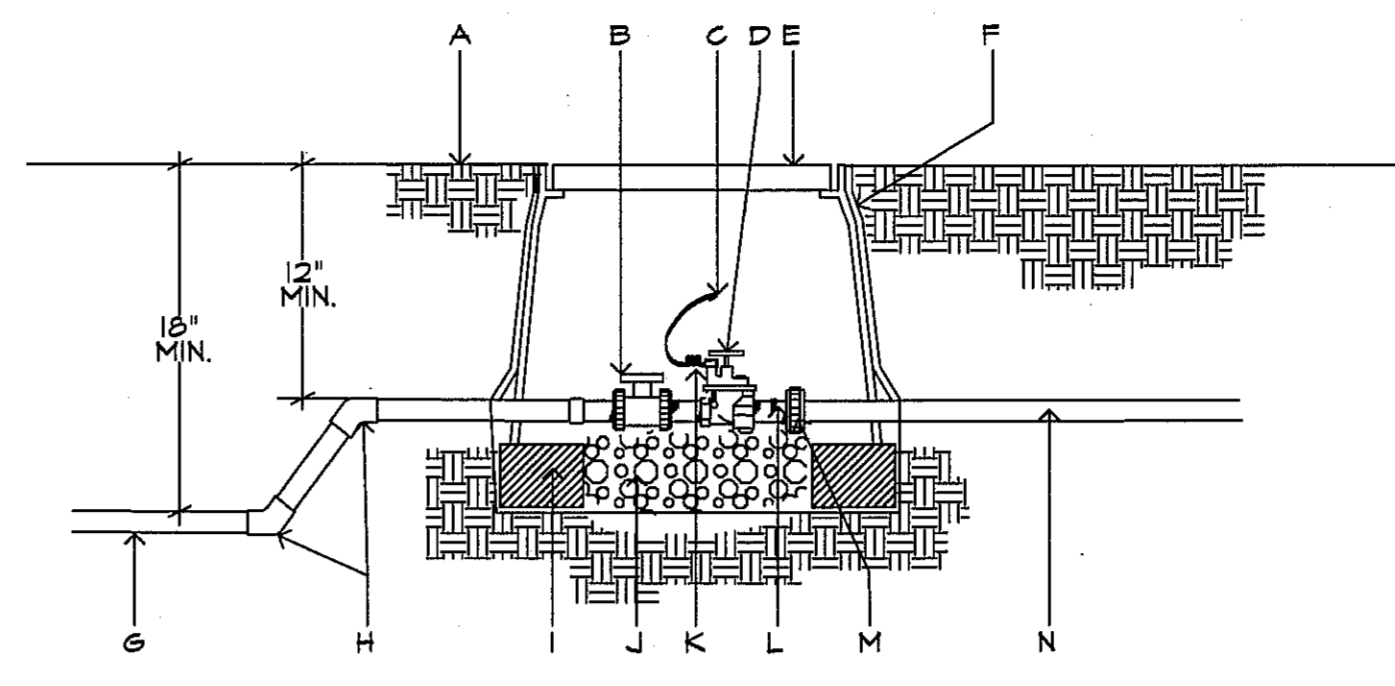
THIS DETAIL SHALL TAKE PRECEDENCE TO ANY OTHER DETAIL SHOWING VALVE BOX INSTALLATION.



NOTE: BLOCKS TO SIT ON WEED CLOTH ON UNDISTURBED SOIL. DISTURBED SOILS SHALL BE COMPACTED WITH TAMPER PRIOR TO SETTING WEED CLOTH & BLOCKS. VALVE BOX AND EXTENSIONS TO SIT ON BLOCKS. VALVE BOX AND EXTENSIONS TO HAVE A MINIMUM 2" CLEARANCE TO THE TOP OF PVC PIPE.

1 BLOCK PLACEMENT ON VALVE BOXES
NOT TO SCALE

2 DRIP VALVE W/ BASKET FILTER
NOT TO SCALE

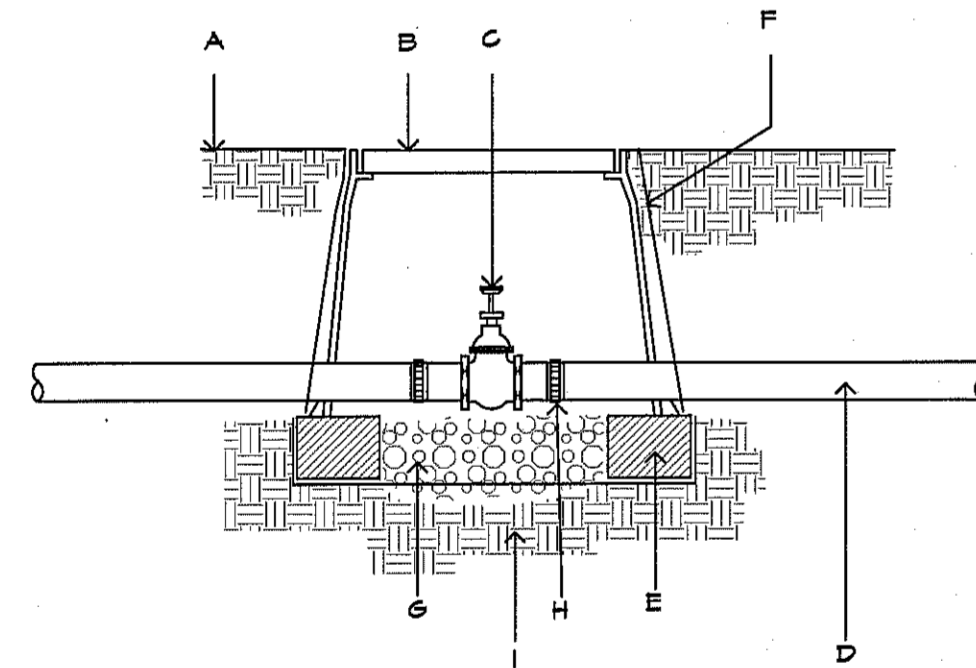


NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

USE XPR PRESSURE REGULATOR

- A. FINISH GRADE.
- B. BALL VALVE.
- C. DRY SPLICE CONNECTOR OR EQUAL.
- D. ELECTRIC VALVE -SEE IRRIGATION LEGEND.
- E. CARSON PRODUCTS INC. 1419-18(B) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISHED MATERIAL AND 8" EXTENSIONS AS NECESSARY.
- F. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
- G. PVC MAINLINE-SEE IRRIGATION LEGEND.
- H. SCH 80 - 45 DEGREE FITTING.
- I. 8"X8"X16" SOLID CMU BLOCK @ EACH CORNER.
- J. 4" DEPTH, 3/8" DIAMETER WASHED PEA GRAVEL.
- K. 24" WIRE EXPANSION COIL, EXTEND WIRE 12" ABOVE VALVE BOX FOR SERVICE.
- L. SCHEDULE 80 PVC CLOSE NIPPLE.
- M. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)
- N. LATERAL LINE.

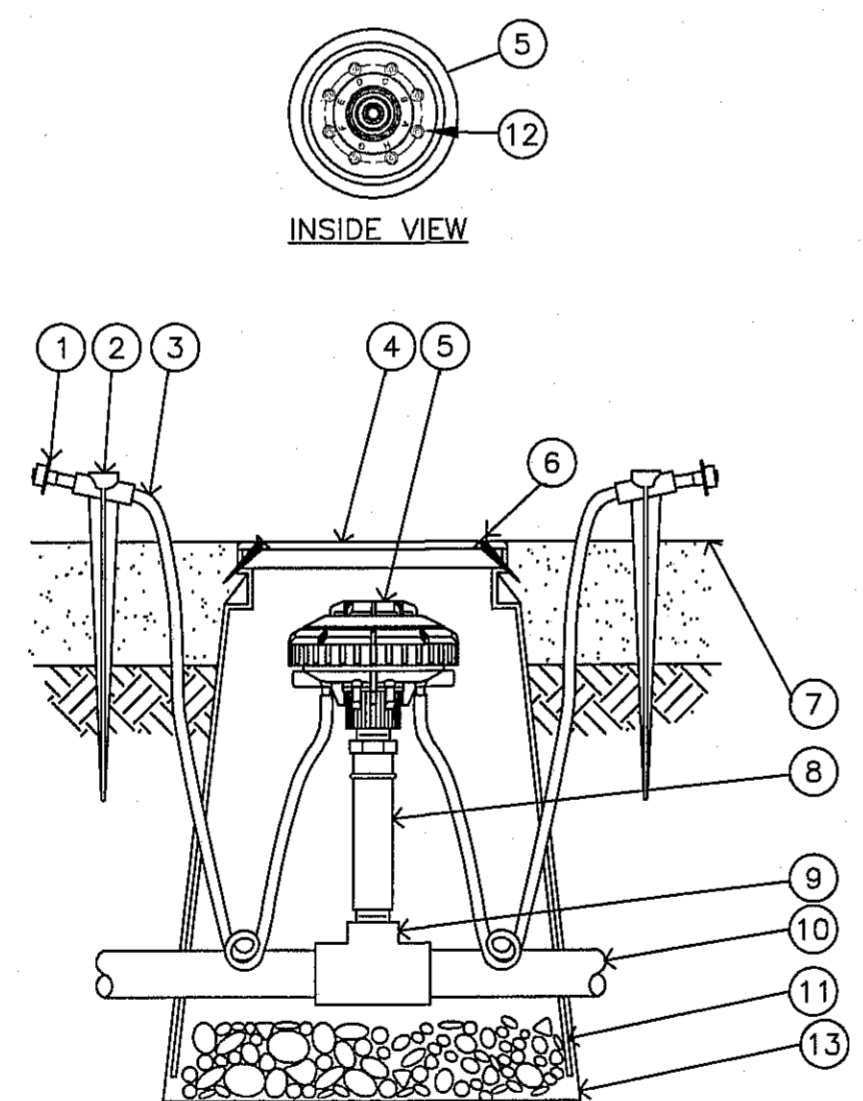
3 IRRIGATION CONTROL VALVE
NOT TO SCALE



NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

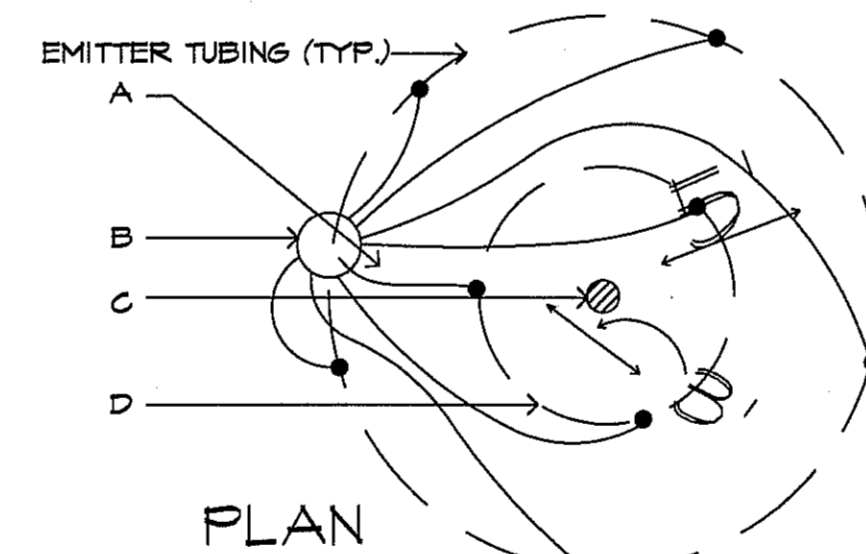
- A. FINISH GRADE.
- B. CARSON PRODUCTS INC. 1419-18(B) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISH MATERIAL AND 8" EXTENSIONS AS NECESSARY.
- C. BRASS ISOLATION VALVE- TO BE APPROVED BY PARKS AND REC.
- D. IRRIGATION MAINLINE.
- E. 8"X8"X16" SOLID CMU SOLID BLOCK @ EACH CORNER.
- F. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
- G. 4" DEPTH, 3/8" WASHED PEA GRAVEL.
- H. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)
- I. EXISTING SOIL

4 ISOLATION VALVE
NOT TO SCALE



NOTES:
 1. COIL ADDITIONAL 9" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.
 2. RAIN BIRD XERI-BUG BARB X BARB EMITTERS ARE AVAILABLE IN THE FOLLOWING MODELS:
 XB-05PC 0.5 GPH XB-10PC 1.0 GPH XB-20PC 2.0 GPH

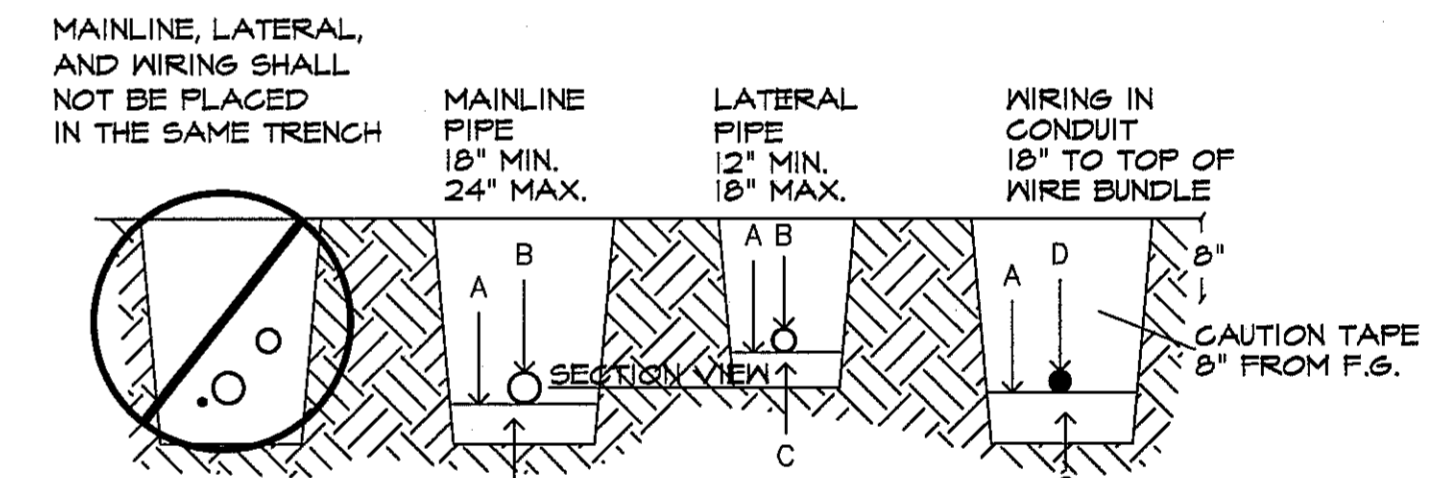
5 DRIP EMITTER FOR TREES AND PLANTS RAIN BIRD XERI-BIRD & MULTI OUTLET EMISSION DEVICE
NOT TO SCALE



INSTALL (8) EMITTERS PER TREE, SPACE EVENLY AROUND ROOTBALL, IN OFFSET TRIANGULAR PATTERN FOR TREES. SEE IRRIGATION LEGEND FOR OUTLET EMITTER SIZE.

- A. EMITTER TUBING.
- B. MULTI OUTLET EMITTER DEVICE, INSTALL 5' FROM TREE TRUNK ON WEST SIDE.
- C. TREE TRUNK.
- D. TREE ROOTBALL.

6 EMITTER PLACEMENT FOR TREES
NOT TO SCALE



SET WIRE BUNDLE AT 5' FROM MAINLINE ALONG THE NORTH AND WEST SIDE OF MAIN OR AS AGREED TOO WITH PARKS STAFF.

ALL SOLVENT WELD IN PLASTIC PIPING TO BE SNAKED IN TRENCH AS SHOWN FOR LATERAL LINES.
 TIE A 24-INCH LOOP IN ALL WIRING AT CHANGES OF DIRECTION OF 90° OR GREATER AND EVERY 200 FEET.

- NOTES: A. BOTTOM OF EXCAVATED TRENCH WHERE NONE ROCKY SOILS ARE EXPOSED (ENCOUNTERED).
 B. IRRIGATION SYSTEM PIPING.
 C. MINIMUM 4" DEEP BEDDING SANDY SOILS MATERIAL WHERE ROCKY SOILS ARE EXPOSED.
 D. IRRIGATION SYSTEM VALVE WIRING.
 E. BACKFILL SOILS MATERIAL MAY BE NATIVE SOILS IF IT IS FREE OF CALICHE OR STONES LARGER THAN 1" IN SIZE AND ORGANIC MATTER OR WASTE DEBRIS. SOILS COMPACTION IN TURF AREAS TO BE 90% TO 95% DENSITY BY ASTM D-1587 STANDARD AND AT 95% DENSITY UNDER PAVED OR HARDSCAPE SURFACES.

7 PIPE IN TRENCH
NOT TO SCALE

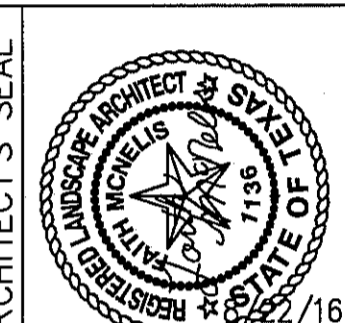
PARKS DEPARTMENT
 REVIEWED BY: [Signature] 11/04/2014

IRRIGATION IS REGULATED BY:
 PO BOX 13087
 AUSTIN, TEXAS 78711-3087
 TCEQ 512-239-6719
 CHAPTER 34, TEXAS WATER CODE
 IRRIGATOR'S LIC. #8947

Final Approval
 [Signature]

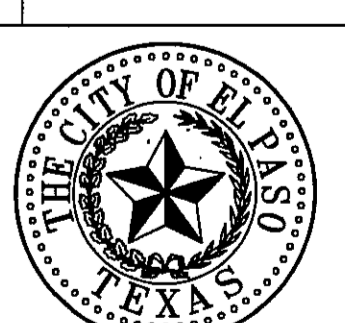
STATE OF TEXAS
 FAITH McNELLS
 0947
 REGISTERED
 LICENSED IRRIGATOR

LANDSCAPE ARCHITECT
 LISA McNELLS
 1900 FOXBORO
 LAS CRUCES, NEW MEXICO 88007
 (505) 621-9032



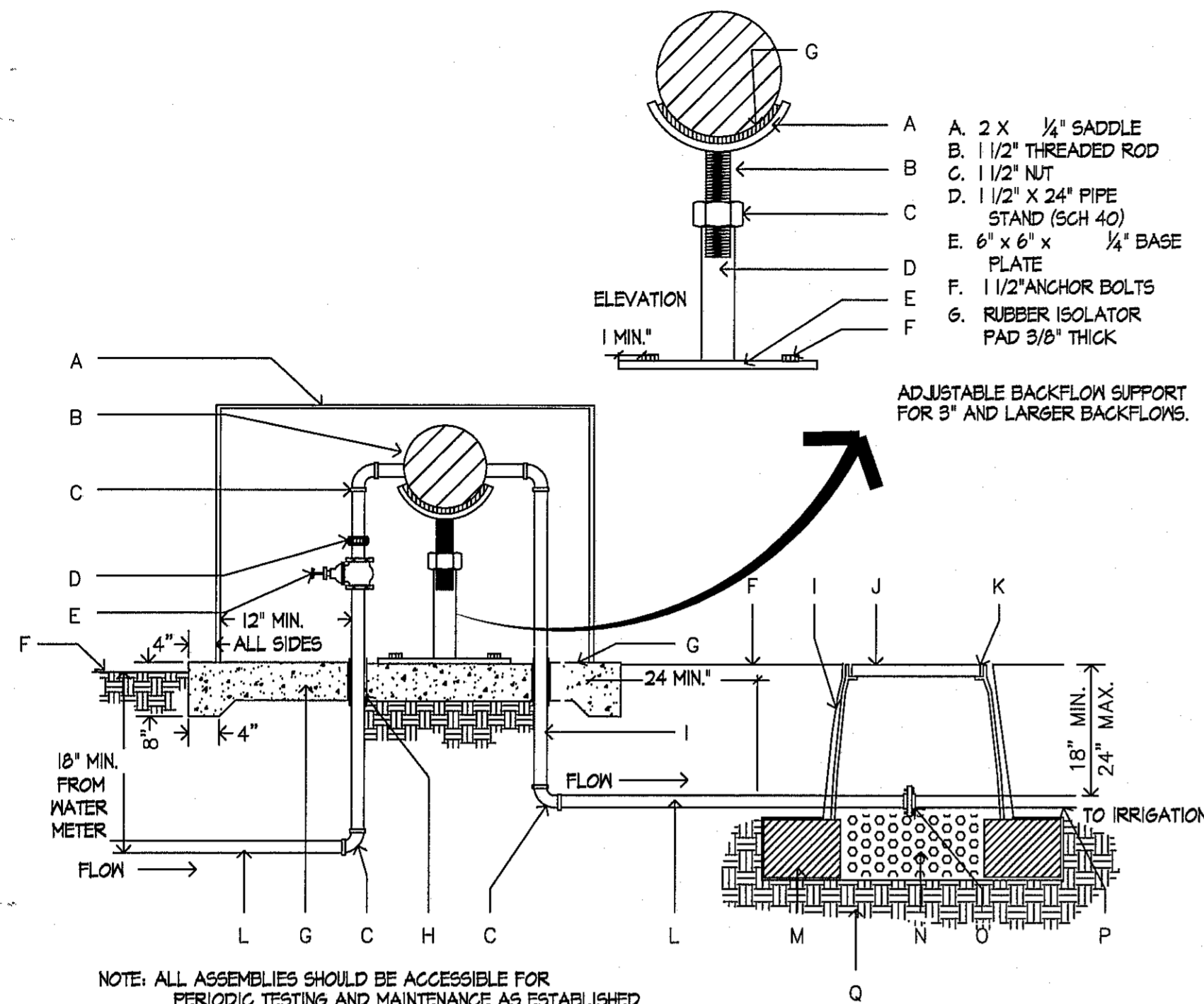
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 JOB No.

PROJECT TITLE
THE OVERLOOK AT FRANKLIN HILLS
 FRANKLIN HILLS UNIT 10 SUBDIVISION
 LOT 7 BLOCK 35 1319 HIDDEN COURT PL
 EL PASO, TEXAS
 AREA: 4681 SQ. FT. - .106 ACRES



SHEET TITLE
L12
 LANDSCAPE
 DETAILS
 SHEET 12 OF 15

8/22/16

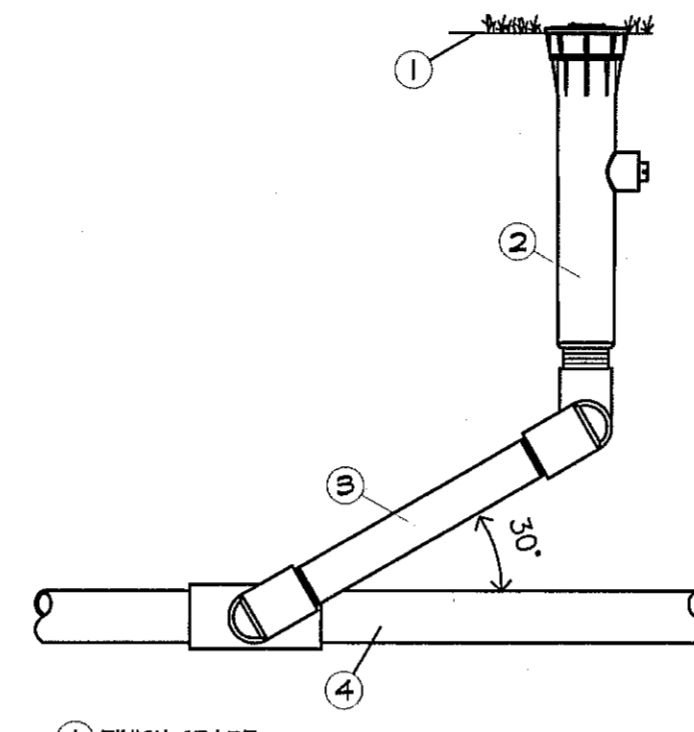


NOTE: ALL ASSEMBLIES SHOULD BE ACCESSIBLE FOR PERIODIC TESTING AND MAINTENANCE AS ESTABLISHED BY LOCAL CODES. SUGGESTED 16\"/>

8 REDUCED PRESSURE ASSEMBLY BACKFLOW NOT TO SCALE

- A. STAINLESS STEEL INSULATED HOT BOX ENCLOSURE R-VALVE R-25 (SEE IRRIGATION LEGEND)
- B. REDUCED PRESSURE ASSEMBLY BACKFLOW PREVENTER (SEE PARTS LIST).
- C. COPPER FITTINGS.
- D. COPPER UNION, 4\"/>

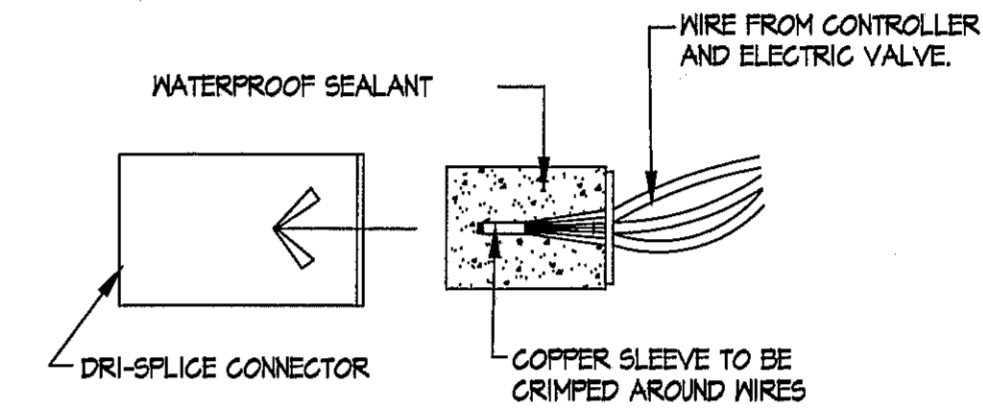
INSTALL AN 8\"/>



- 1 FINISH GRADE
- 2 MODEL PROS-06 SPRAY HEAD WITH 'CV' OPTION INSTALLED
- 3 LASCO SWING JOINT
- 4 LATERAL PIPE

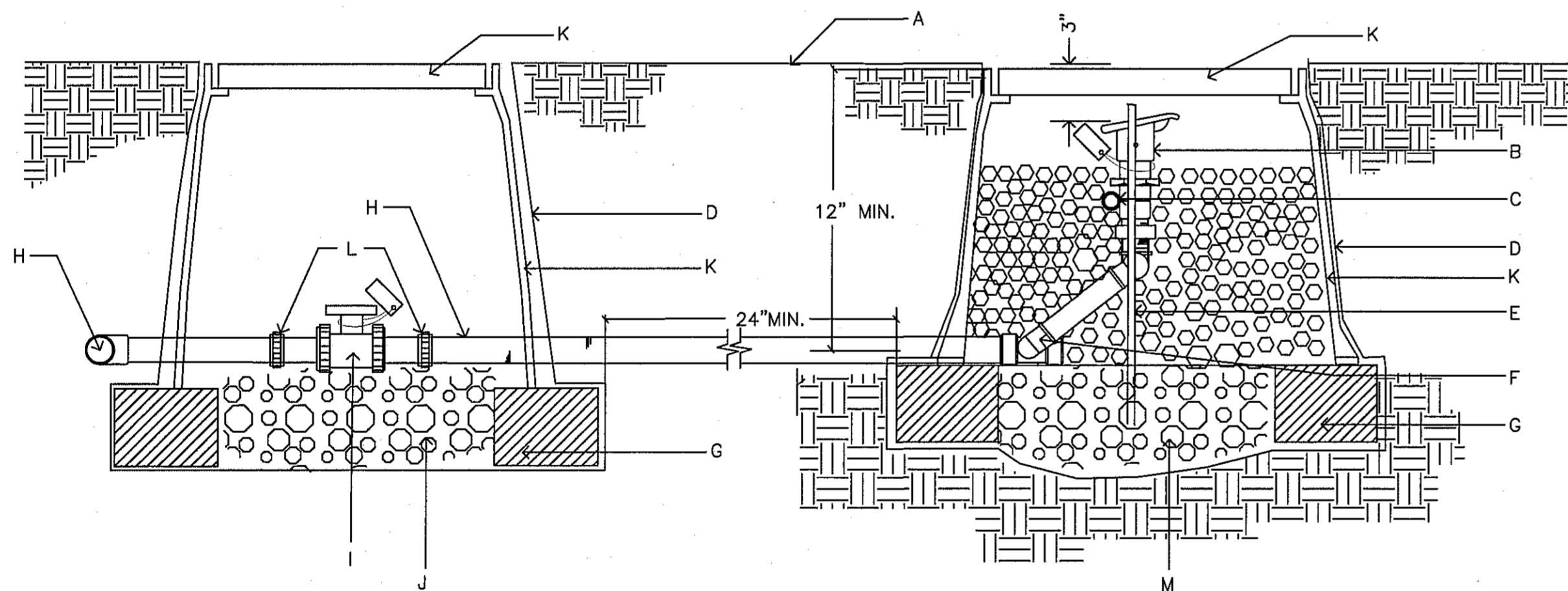
TOP OF SPRINKLER HEAD SHALL BE SET FLUSH WITH FINISH GRADE. SWING JOINT INSTALLATION TO COMPLY WITH MANUFACTURER'S RECOMMENDATION. SEE PLANS FOR NOZZLE RADIUS

9 HUNTER PRO 50 POP-UP SPRAY HEAD NOT TO SCALE



THREE STEP OPERATION DRI-SPLICE CONNECTOR ONLY. FILL WITH SEALANT SUFFICIENT TO SEAL WHEN ASSEMBLED.

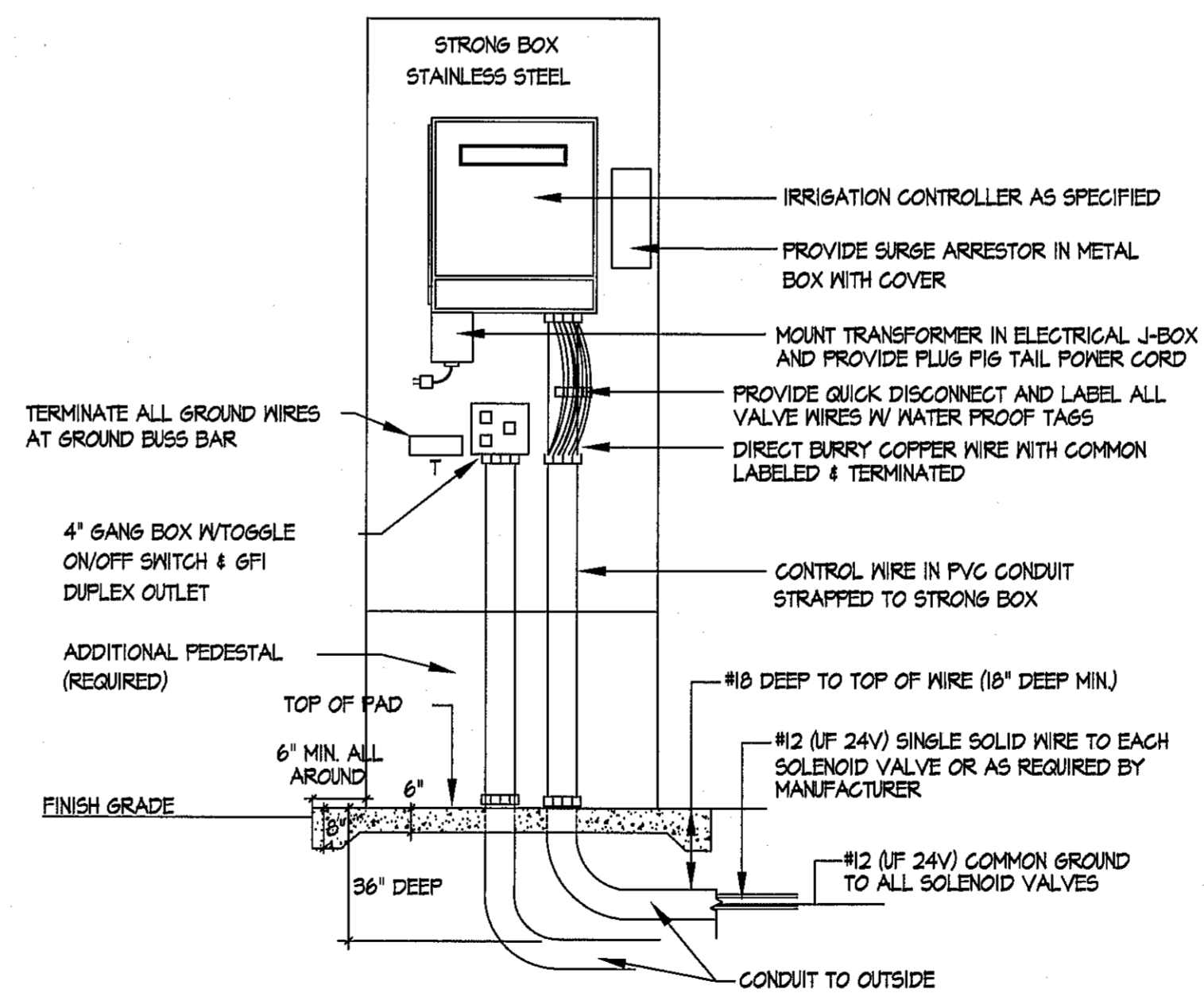
10 WIRE CONNECTORS NOT TO SCALE



- A. FINISH GRADE.
- B. 1\"/>

NOTE: INSTALL AN 8\"/>

11 QUICK COUPLER VALVE NOT TO SCALE



1. GROUND CABINET WITH #10 GAUGE OR HEAVIER STRANDED COPPER WIRE TO GROUNDING ROD AS PER MANUFACTURER'S SPECIFICATIONS.
2. PEDESTAL ENCLOSURE TO BE SIZED TO HOUSE EQUIPMENT PROPERLY.
3. PEDESTAL ENCLOSURE TO BE ANCHORED TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATIONS

12 CONTROLLER IN PEDESTAL ENCLOSURE DETAIL NOT TO SCALE

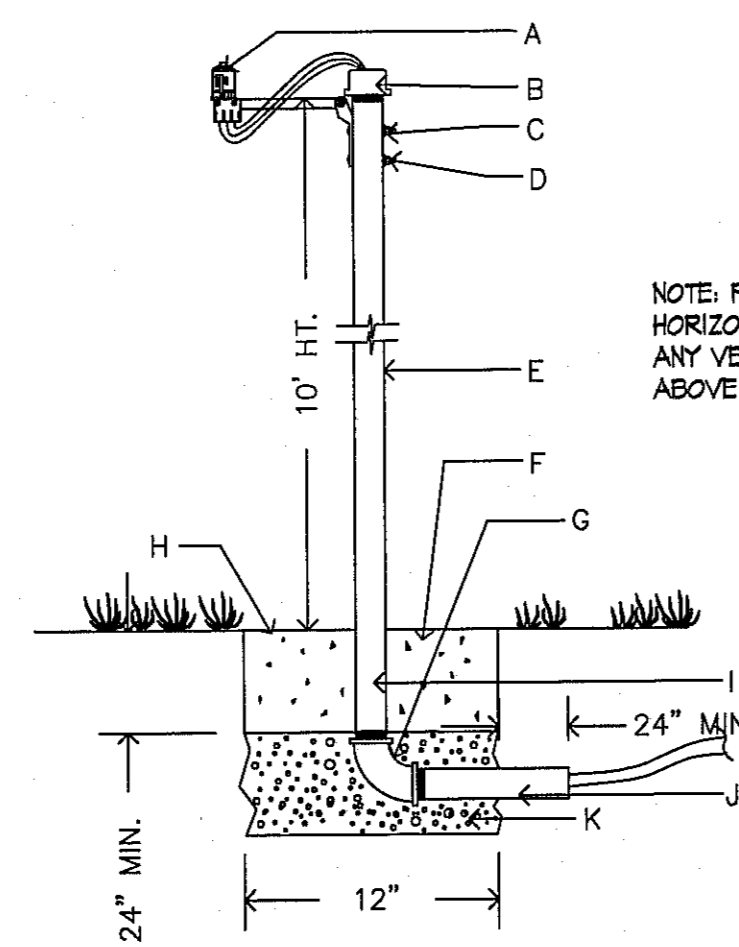
REVISIONS	
DATE	
LISA MCNEELIS LANDSCAPE ARCHITECT 1900 FOXBORO LAS CRUCES, NEW MEXICO 88007 (575) 621-5032	
ARCHITECT'S SEAL	
SCALE	Horizontal: N/A Vertical: N/A Contour Interval: N/A DATE: 8/22/16 DESIGN BY: LM DRAWN BY: LM CHKD. BY: LM APPROV. BY: LM JOB No.
PROJECT TITLE	THE OVERLOOK AT FRANKLIN HILLS FRANKLIN HILLS UNIT 10 SUBDIVISION LOT 7 BLOCK 35 319 HIDDEN COURT PL EL PASO, TEXAS AREA: 4601 SQ. FT. - .106 ACRES
SHEET TITLE	L13 LANDSCAPE DETAILS
SHEET 13 OF 15	



PARKS DEPARTMENT
REVIEWED BY: *Anthony...* 11/04/2016

IRRIGATION IS REGULATED BY:
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AUSTIN, TEXAS 78711-3087
TCEQ 512-239-6719
CHAPTER 34, TEXAS WATER CODE
IRRIGATOR'S LIC. #8947

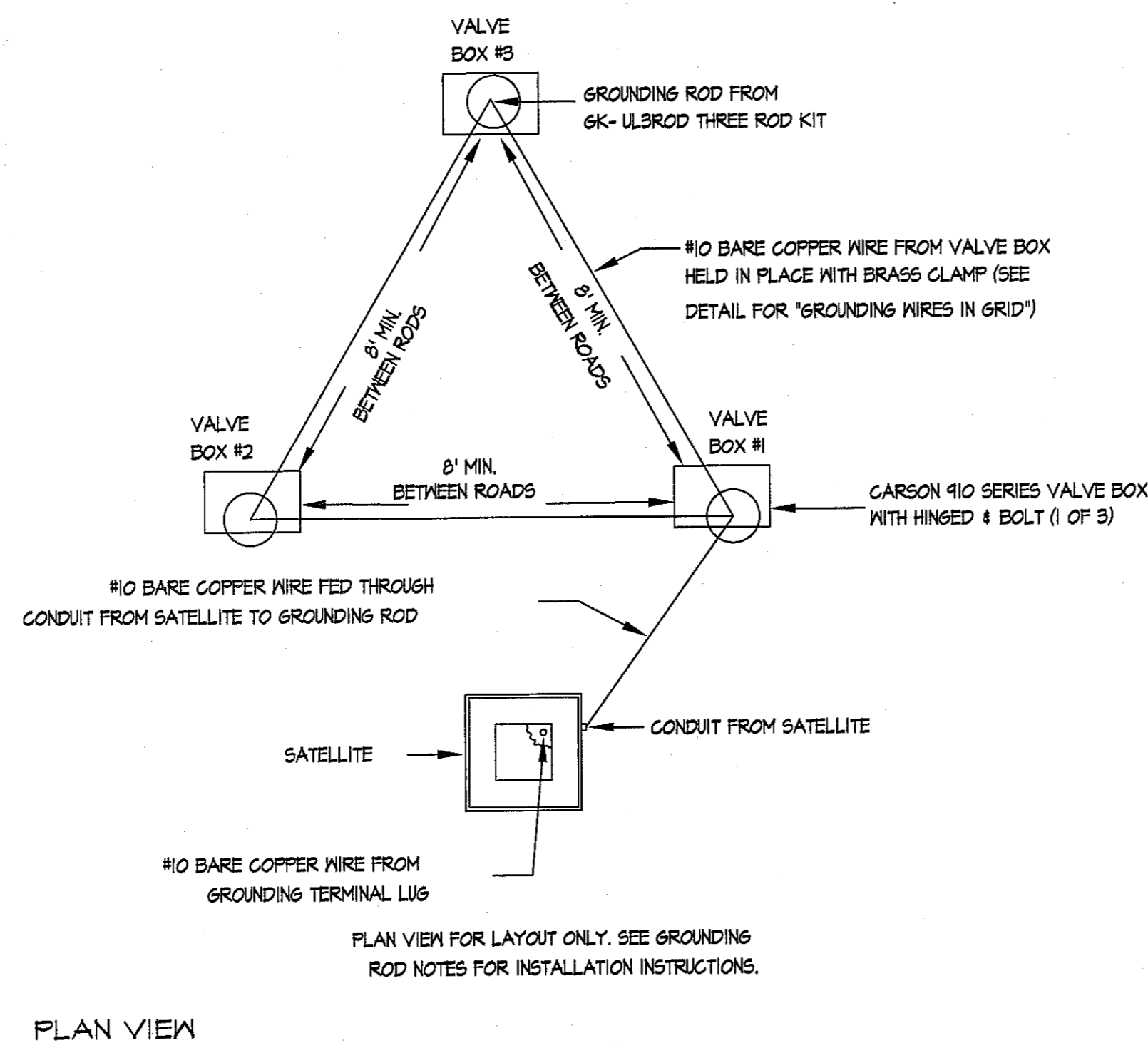




NOTE: PROVIDE A 1 FT. HORIZONTAL CLEARANCE FROM ANY VERTICAL STRUCTURES ABOVE 12 INCHES.

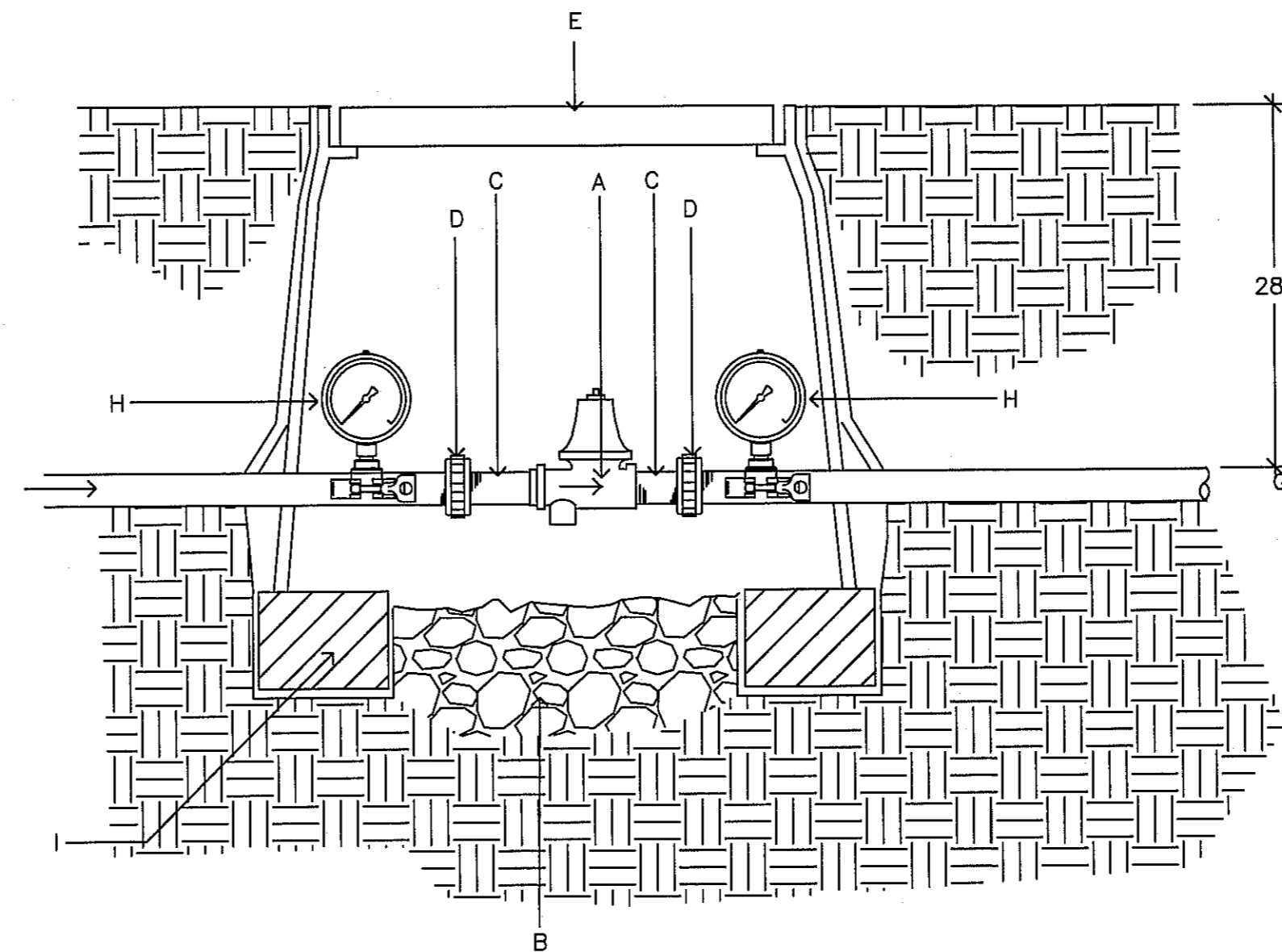
- A. RAIN BIRD RSD-BEX RAIN SENSOR, SET TO 1/8"
- B. 2 3/4" PIPE CAP WITH HOLE FOR WIRES AND SEAL WITH EXTERIOR GRADE SILICONE SEALANT.
- C. DRILL TWO 3/16" HOLES IN PIPE FOR SENSOR BRACKET.
- D. (2) NO. 8-32 MACHINE SCREWS WITH WASHER, LOCK WASHER AND NUT.
- E. 2 1/2" SCH 40 GALVANIZED PIPE-10 FT. HT. A.G.
- F. 12"X12" CONCRETE BASE, MIN. 24" DEEP.
- G. PIPE ELBOW
- H. FINISH GRADE
- I. PIPE TO BE SEALED AFTER CABLE IS RUN, USE 4 MIL. PLASTIC AND TAPED NIPPLE AND THE CABLE WITH HIGH GRADE 3M WEATHER PROOF PLASTIC TAPE.
- J. NIPPLE, GALVANIZED PIPE IN CONCRETE FOOTING TO BE WRAPPED WITH WEATHER PROOF TAPE TO PROTECT FROM CORROSION.
- K. 6" THICK, 3/8" DIAMETER WASHED FEA GRAVEL.

13 RAIN SENSOR
NOT TO SCALE



PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

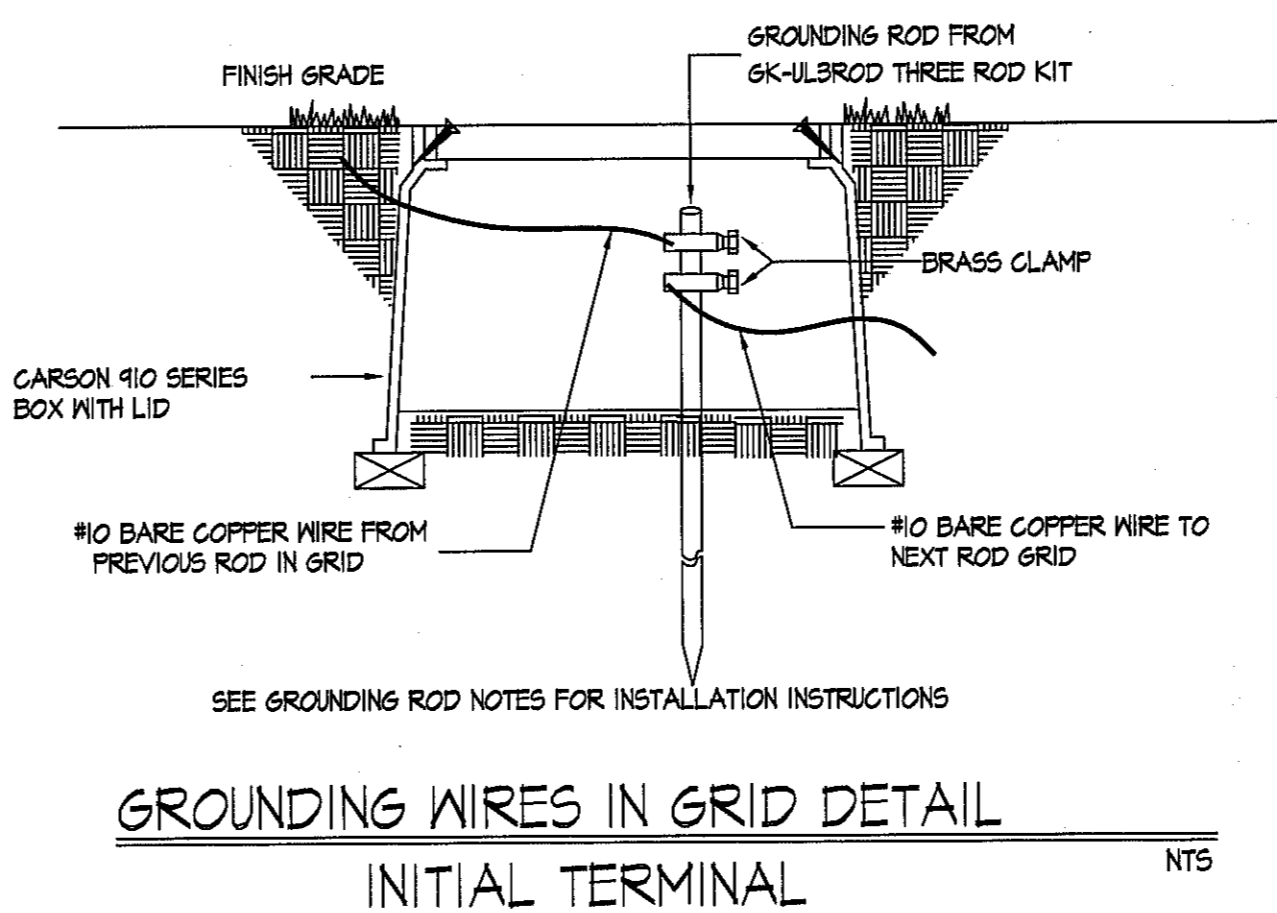
15 TRIANGULAR GROUNDING GRID DETAIL
NOT TO SCALE



CONSTRUCTION NOTES:
A. PRESSURE REGULATOR, SEE IRRIGATION LEGEND
B. 2 CU. FT. 1" DIAMETER WASHED FEA GRAVEL.
C. SCH. 80 PVC NIPPLE
D. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)
E. CARSON PRODUCTS INC. 1419 OR 1730 FB-18 BODY (ABS) VALVE BOX WITH 1419 OR 1730 BOLT DOWN COVER (ABS) TO MATCH FINISHED MATERIAL AND (1) 8 INCH EXTENSION.
F. DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
G. MAINLINE
H. HORIZONTAL HYGIENIC PRESSURE GAUGE
NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTREAM AND DOWNSTREAM OF PRESSURE REDUCING VALVE. SET IT IN HORIZONTAL TO BE READABLE.
I. 8"X8"X16" SOLID CMU BLOCK @ EACH CORNER.

NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

14 IN-LINE PRESSURE REGULATOR
NOT TO SCALE



GROUNDING WIRES IN GRID DETAIL
INITIAL TERMINAL
NTS

GROUNDING ROD NOTES:

- GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:
- 1. ALWAYS USE A 5/8" X 8' COPPER CLAD ROD.
- 2. RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
- 3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
- 4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
- 5. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
- 6. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
- 7. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 15 OHMS.
- 8. WHENEVER MORE THEN ONE WIRE IS ATTACHED TO A GROUNDING ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
- 9. GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM.



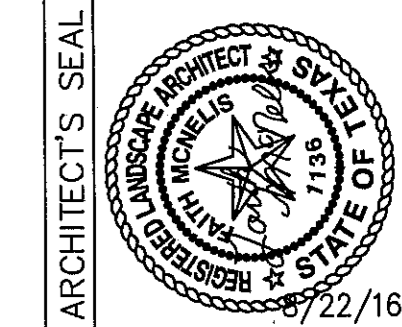
PARKS DEPARTMENT
REVIEWED BY *Anthony del...* 11/04/2014

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AUSTIN, TEXAS 78711-3087
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CHAPTER 34, TEXAS WATER CODE
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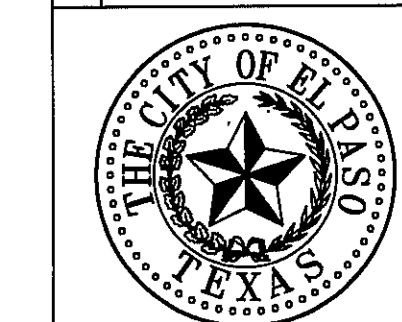
DATE

LISA MCNELLIS
LANDSCAPE ARCHITECT
1900 FOXBORO
LAS CRUCES, NEW MEXICO 88007
(575) 621-9052



SCALE:
Horizontal: _____
Vertical: _____
Contour Interval: N/A
DATE: 8/22/16
DESIGN BY: LM
DRAWN BY: LM
CHKD. BY: LM
APPVD. BY: LM
JOB No. _____

PROJECT TITLE
THE OVERLOOK AT FRANKLIN HILLS
FRANKLIN HILLS UNIT 10 SUBDIVISION
LOT 7 BLOCK 35 1319 HIDDEN COURT FL
EL PASO, TEXAS
AREA: 4801 SQ. FT. - .106 ACRES

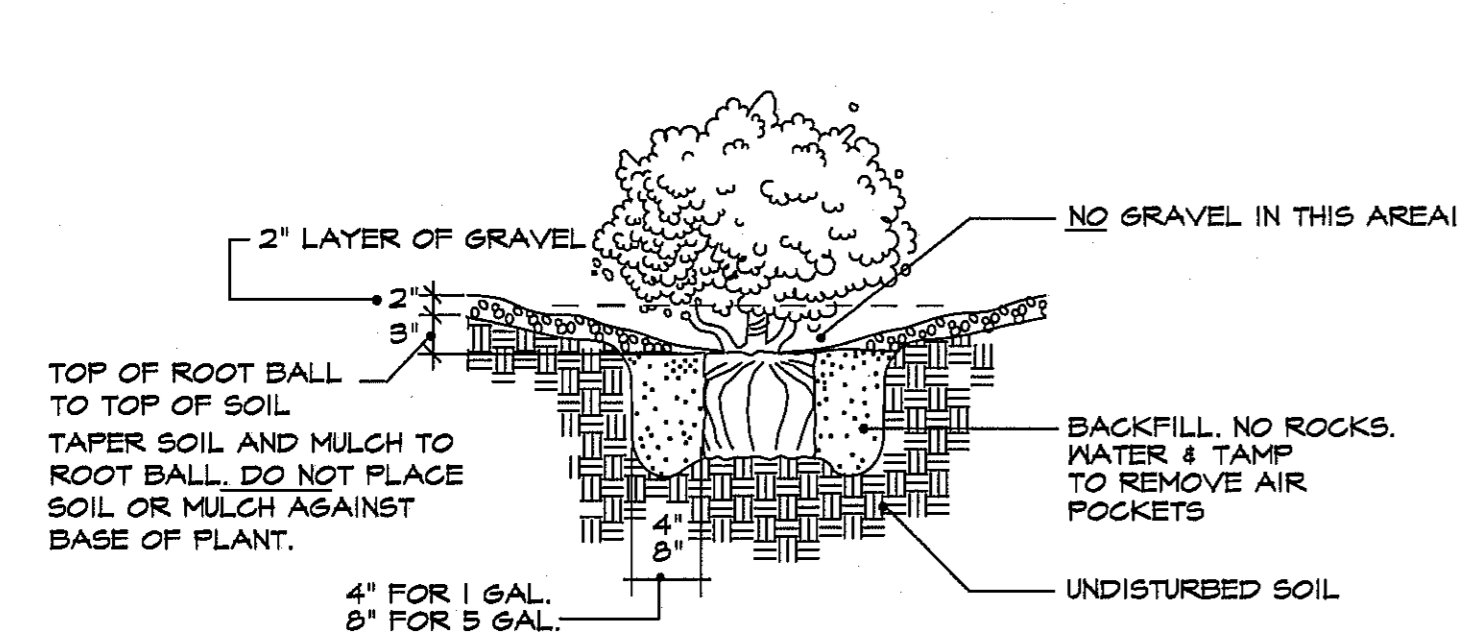


SHEET TITLE

L14

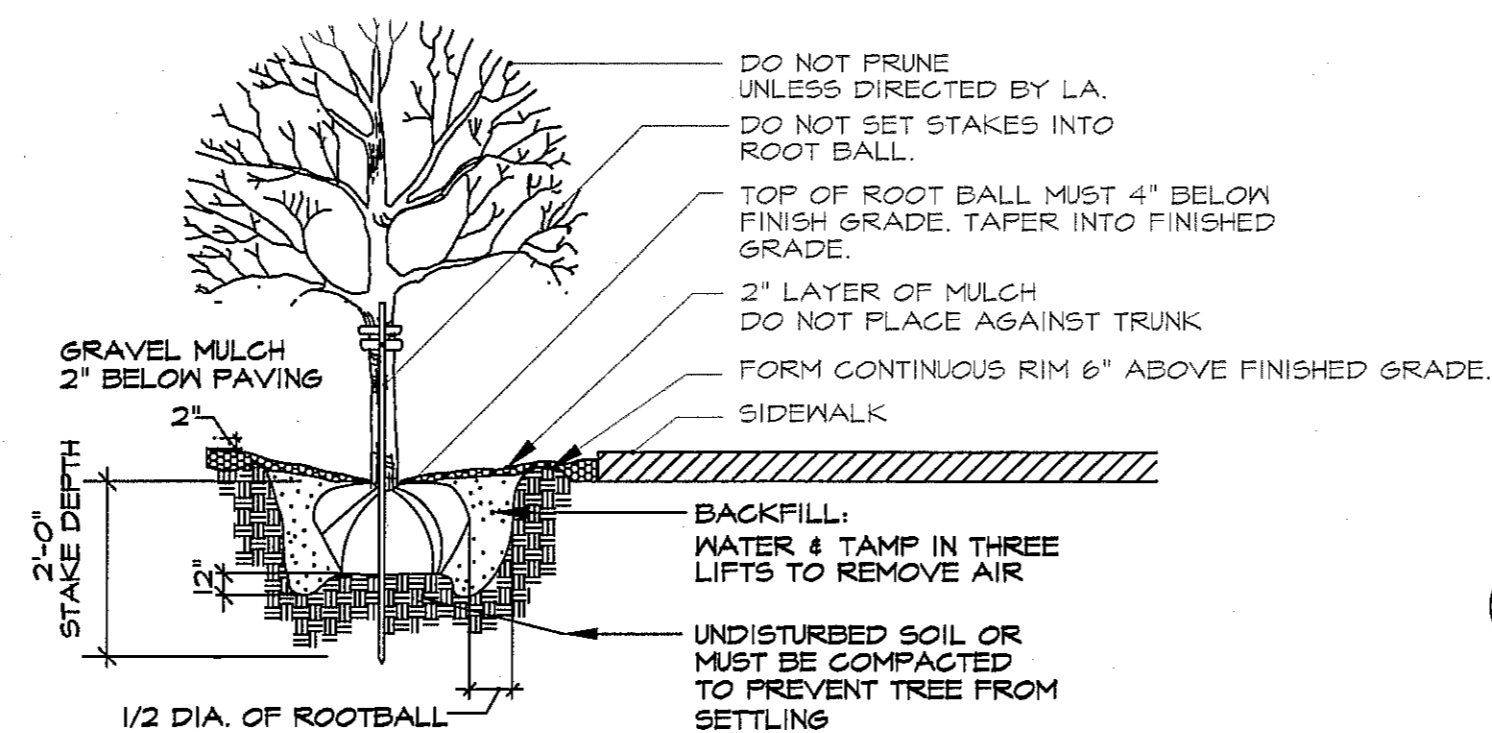
IRRIGATION DETAILS

SHEET 14 OF 15



DO NOT COVER THE PLANTS WITH GRAVEL !

1 TYPICAL SHRUB PLANTING DETAIL - SECTION
NOT TO SCALE



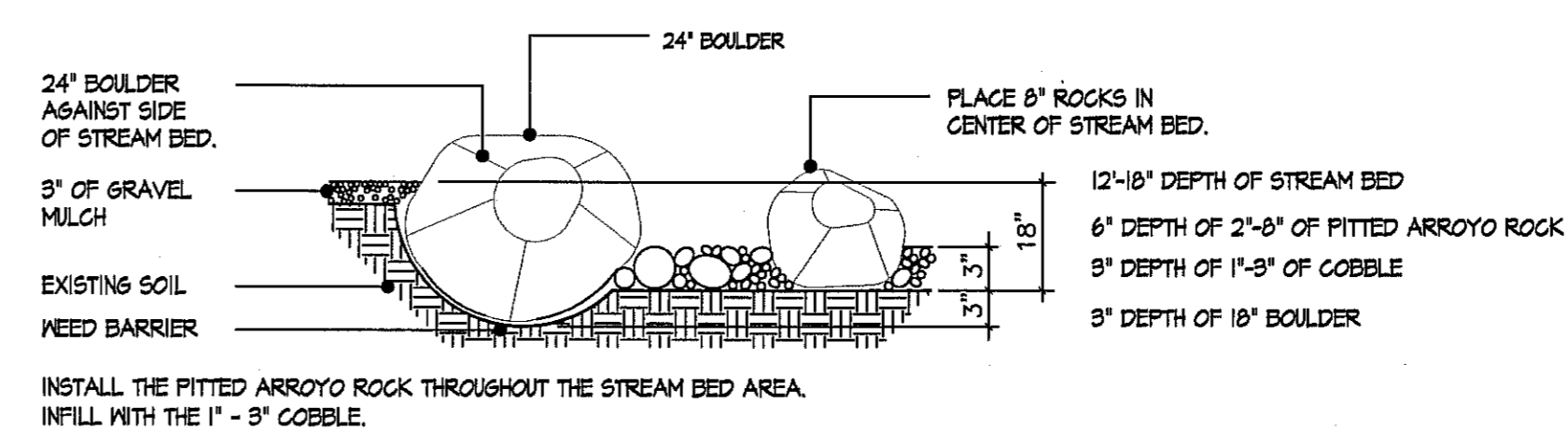
NOTE:
TO DETERMINE TOP OF ROOT BALL FIND TOP ROOT ON BASE OF TRUNK AND SET IT 4" BELOW SOIL SURFACE. TAPER SOIL BACK FROM TRUNK TO TREE RIM.

CENTER TREES IN DESIGNATED OPEN SPACE SHOWN ON PLAN.

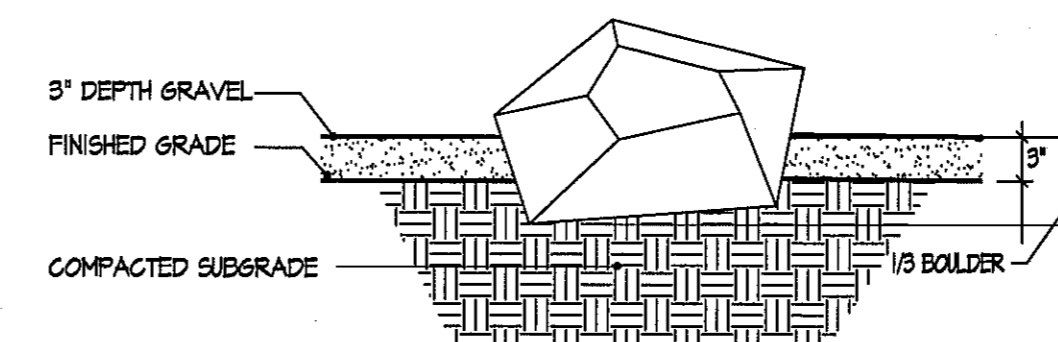
TREE TRUNKS MAY NOT BE WITHIN 2' OF THE SIDEWALK.

REMOVE BASE OF BOX. SET BOX IN HOLE THEN CLIP METAL BANDS AND REMOVE BOX SIDES.

2 TYPICAL TREE PLANTING DETAIL - SECTION
NOT TO SCALE

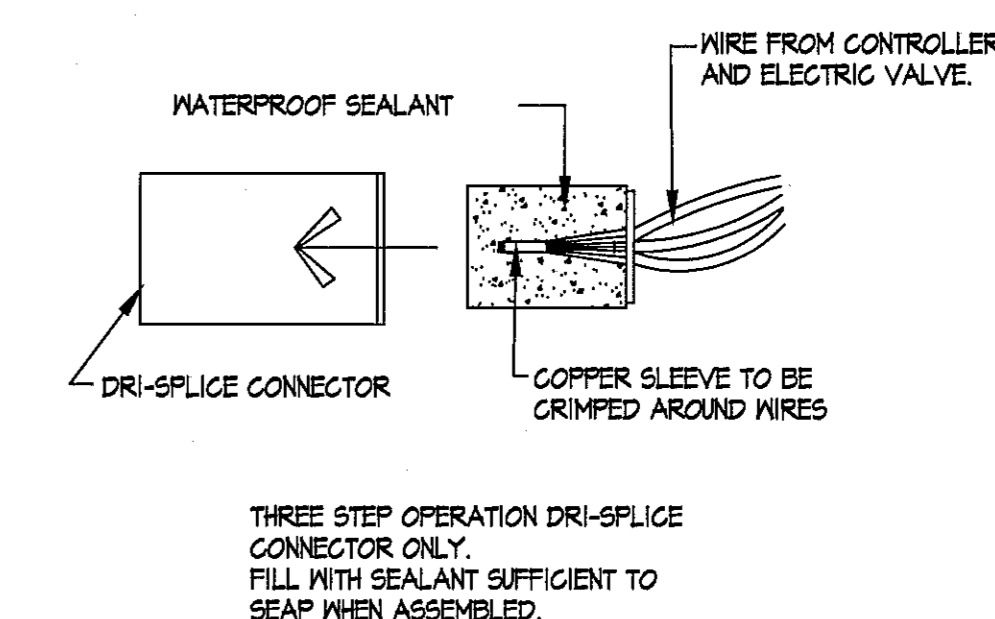


3 STREAM BED ROCK PLACEMENT
NOT TO SCALE

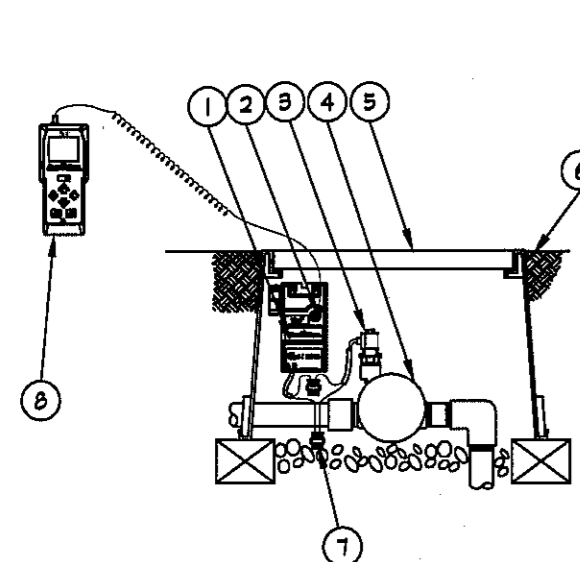


FOR NATURAL APPEARANCE PLACE 2 OR 3 BOULDERS TOUCHING AND AT DIFFERENT HEIGHTS.

4 BOULDER PLACEMENT
NOT TO SCALE



5 WIRE CONNECTORS
NOT TO SCALE

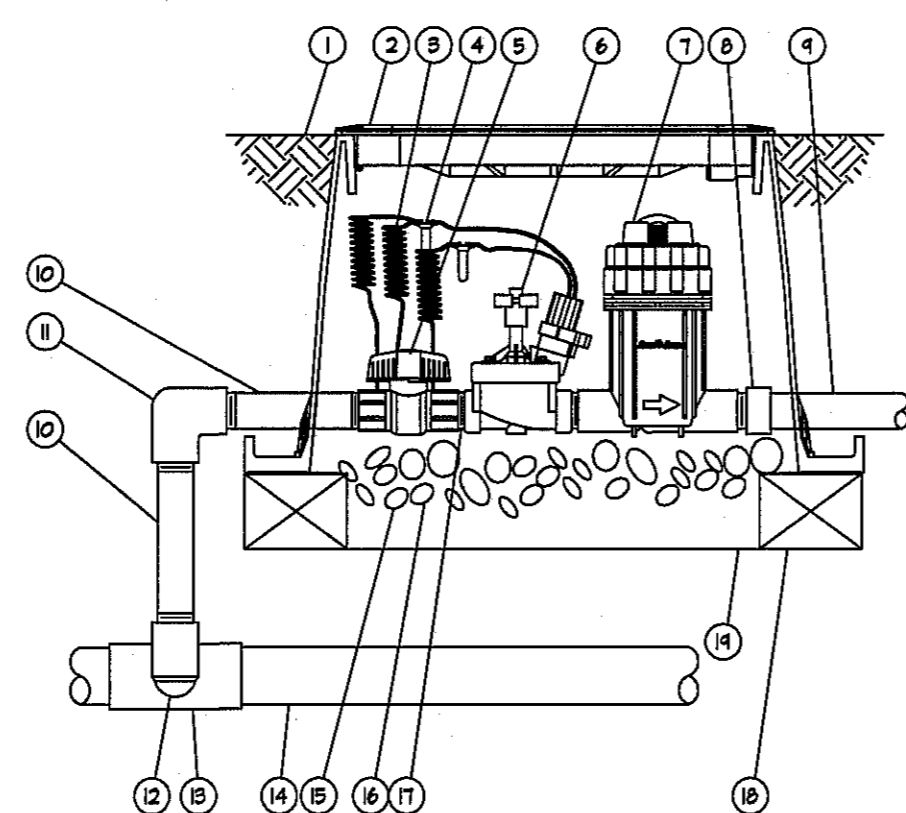


- 1 RAIN BIRD TBOS CONTROL MODULE
- 2 INFRARED CONNECTION FOR PROGRAM CONTROL
- 3 RAIN BIRD TBOS SOLENOID
- 4 REMOTE CONTROL VALVE
- 5 VALVE BOX WITH COVER
- 6 TOP OF GRAVEL MULCH
- 7 WATERPROOF CONNECTION (1 OF 2)
- 8 RAIN BIRD TBOS FIELD TRANSMITTER

NOTE:
SEE DETAIL SHOWS TYPICAL INSTALLATION OF TBOS MODULE AND TRANSMITTER DETAIL IN VALVE BOX.
REFER TO CONTROL VALVE DETAIL (THIS SHEET) FOR VALVE AND COMPONENTS FOR THIS PROJECT.
CONTRACTOR TO SUPPLY MANUFACTURER RECOMMENDED BATTERIES AND TBOS-SOLENOID AT EACH VALVE. ONLY ONE TRANSMITTER IS REQUIRED.

TBOS MODULE AND TRANSMITTER DETAIL
NOT TO SCALE

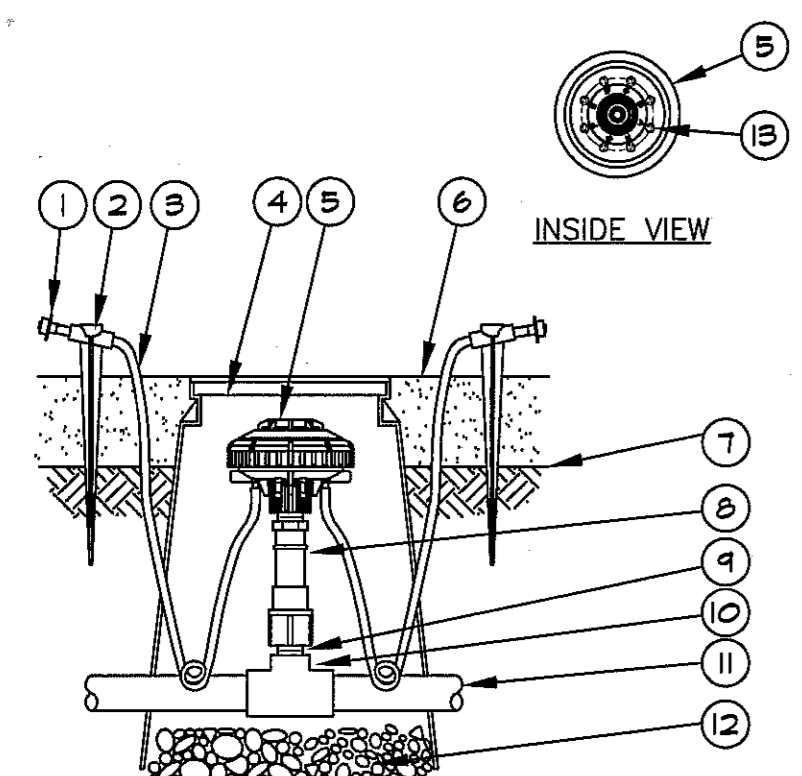
6 TBOS MODULE AND TRANSMITTER DETAIL
NOT TO SCALE



- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH BOLT DOWN COVER
- 3 30-INCH LINEAR LENGTH OF WIRE, COILED
- 4 WATERPROOF CONNECTION
- 5 BALL VALVE
- 6 REMOTE CONTROL VALVE: RAIN BIRD F25B
- 7 QUICK CHECK BASKET FILTER NOT PRESSURE REGULATING RAIN BIRD FRB-GKCHK-200
- 8 RAIN BIRD FRB-GKCHK-200
- 9 LATERAL PIPE
- 10 LATERAL PIPE
- 11 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 12 PVC SCH 40 ELL
- 13 PVC SCH 80 NIPPLE (2-INCH LENGTH HIDDEN) AND PVC SCH 40 ELL
- 14 PVC SCH 40 TEE OR ELL
- 15 MAINLINE PIPE
- 16 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 17 PVC SCH 80 NIPPLE, CLOSE
- 18 BRICK- ONE AT EA. CORNER
- 19 NEED BARRIER

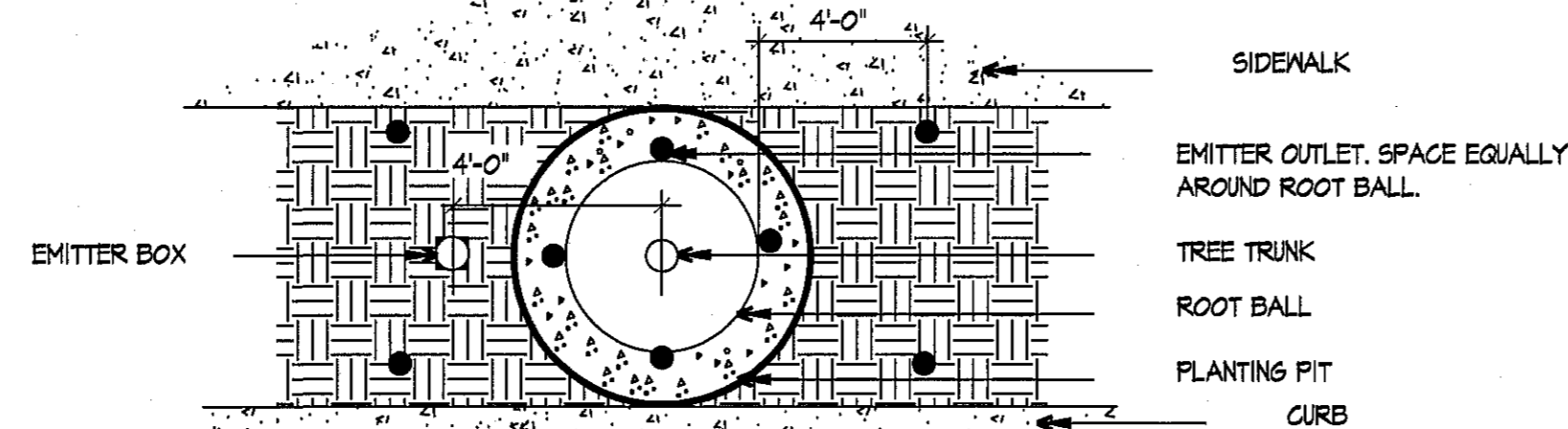
NOTE:
REFER TO LEGEND ON IRR SHEET FOR ADDITIONAL INSTRUCTIONS

7 IRRIGATION CONTROL VALVE
NOT TO SCALE



NOTE:
1. COIL ADDITIONAL 4" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.
2. DO NOT EXCEED 20' LENGTH OF MICROTUBE
3. INSTEM PRESSURE REGULATOR NOT REQUIRED FOR CUL-DE-SACS

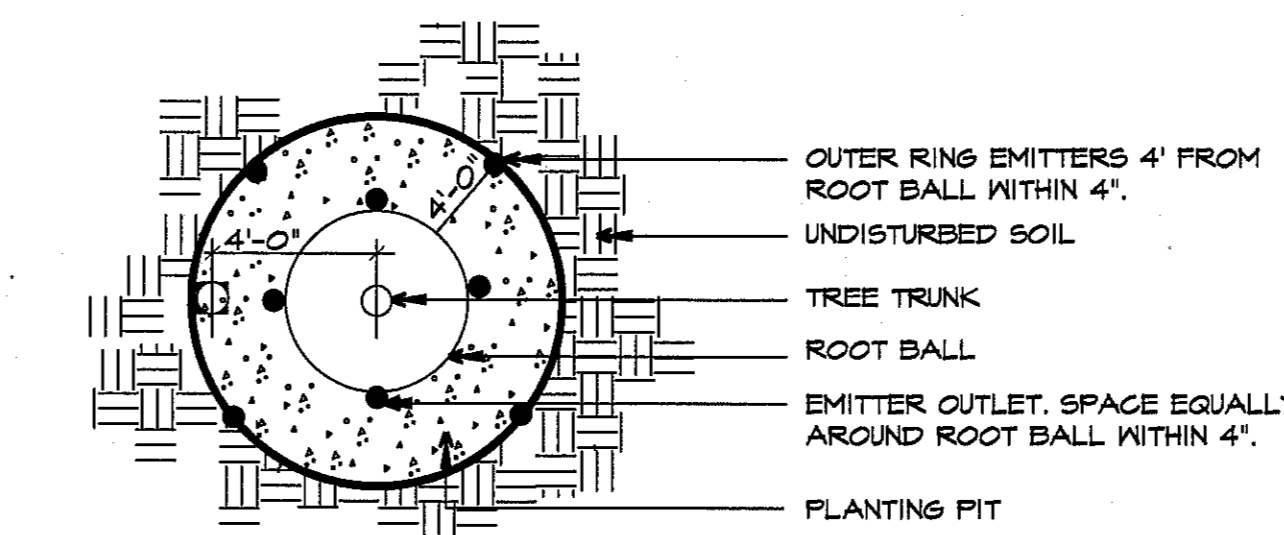
8 XERI-BIRD 8 MULTI-OUTLET EMISSION DEVICE
NOT TO SCALE



FOR TREES USE 8 XB-20-PC

LOCATE INNER RING EMITTER OUTLETS WITHIN 4" OF ROOTBALL.
LOCATE OUTER RING EMITTER OUTLETS 4" FROM ROOTBALL.
DO NOT EXCEED 20' WITH MICROTUBING.

9 PARKWAY TREE EMITTER LAYOUT - PLAN VIEW
NOT TO SCALE

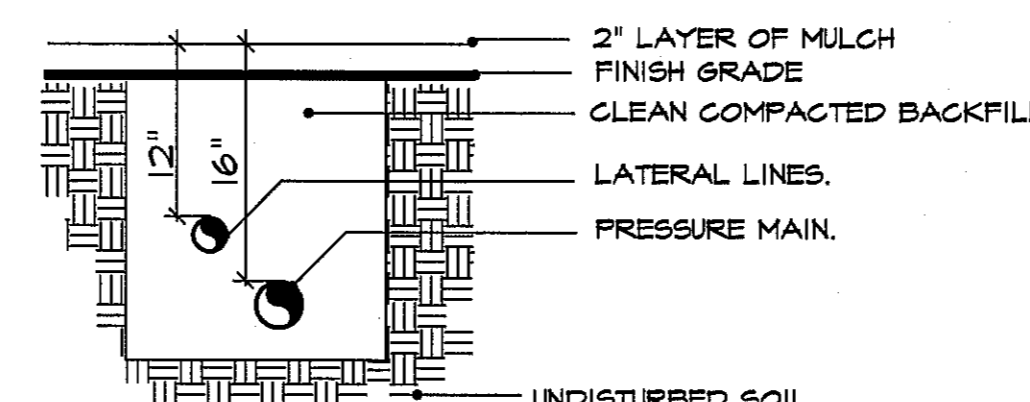


FOR TREES USE 8 XB-20-PC

LOCATE INNER RING EMITTER OUTLETS WITHIN 4" OF ROOTBALL.
LOCATE OUTER RING EMITTER OUTLETS 4" FROM ROOTBALL.
DO NOT EXCEED 20' WITH MICROTUBING.

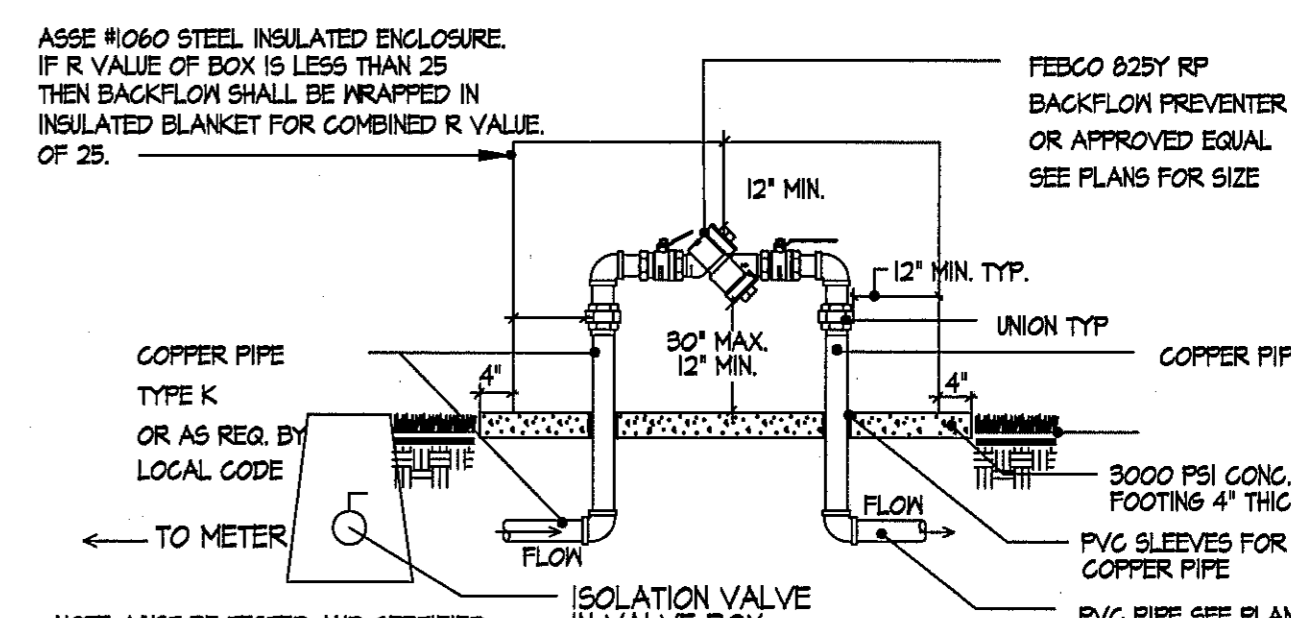
10 TYPICAL TREE EMITTER LAYOUT - PLAN VIEW
NOT TO SCALE

8 TYPICAL PIPE TRENCHING DETAIL
NOT TO SCALE



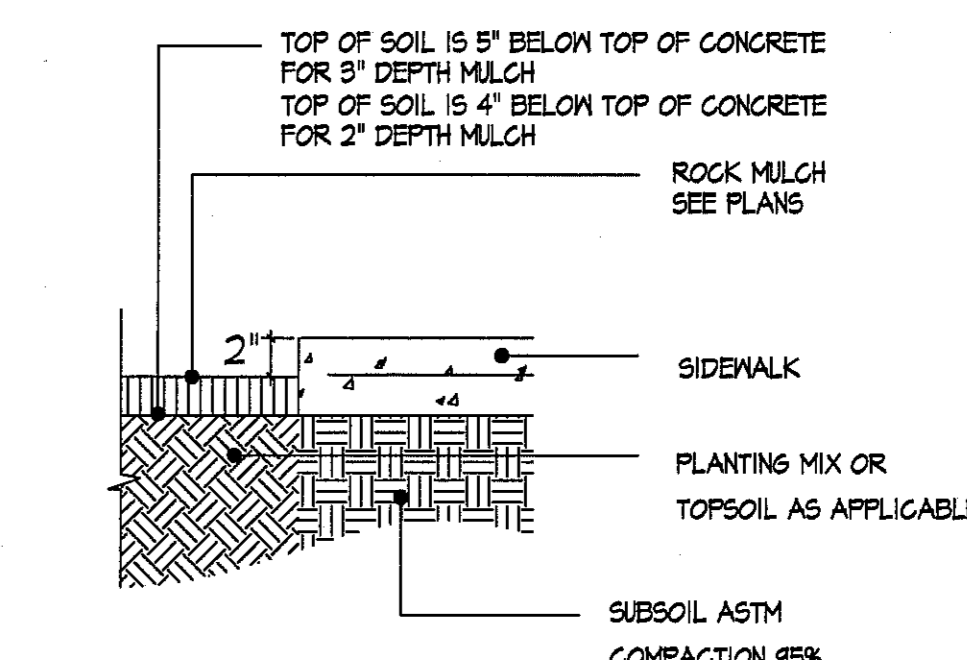
NOTE:
ALL PLASTIC PIPING SHALL BE SNAKED WITHIN TRENCH.
ALL MAINLINE PIPING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION SPECIFICATIONS.

8 TYPICAL PIPE TRENCHING DETAIL
NOT TO SCALE



NOTE: MUST BE TESTED AND CERTIFIED TO MEET LOCAL CODES.
ADD ISOLATION VALVE BEFORE BACKFLOW.
IF UPSTREAM PRESSURE FLUCTUATION CAUSES DISCHARGE ADD APPROVED CHECK VALVE UPSTREAM OF BACKFLOW.
IF DOWNSTREAM PRESSURE EXCEEDS 90 PSI ADD APPROVED PRESSURE REGULATOR DOWNSTREAM OF BACKFLOW.

9 REDUCED PRESSURE BACKFLOW PREVENTER
NOT TO SCALE

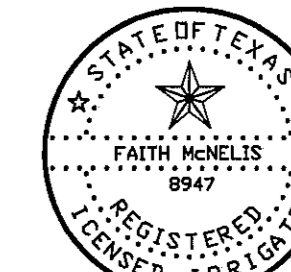


11 GRAVEL AT CONCRETE
NOT TO SCALE



Final Approval

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TOED 512-239-6719
CHAPTER 34, TEXAS WATER CODE
IRRIGATOR'S LIC. #8947



8/22/16
Faith McNellis

DATE: _____

ARCHITECT'S SEAL: _____

SCALE: Horizontal: 1/4" = 1'-0" Vertical: 1/8" = 1'-0"

PROJECT TITLE: FRANKLIN HILLS UNIT 10 SUBDIVISION LANDSCAPE IMPROVEMENTS

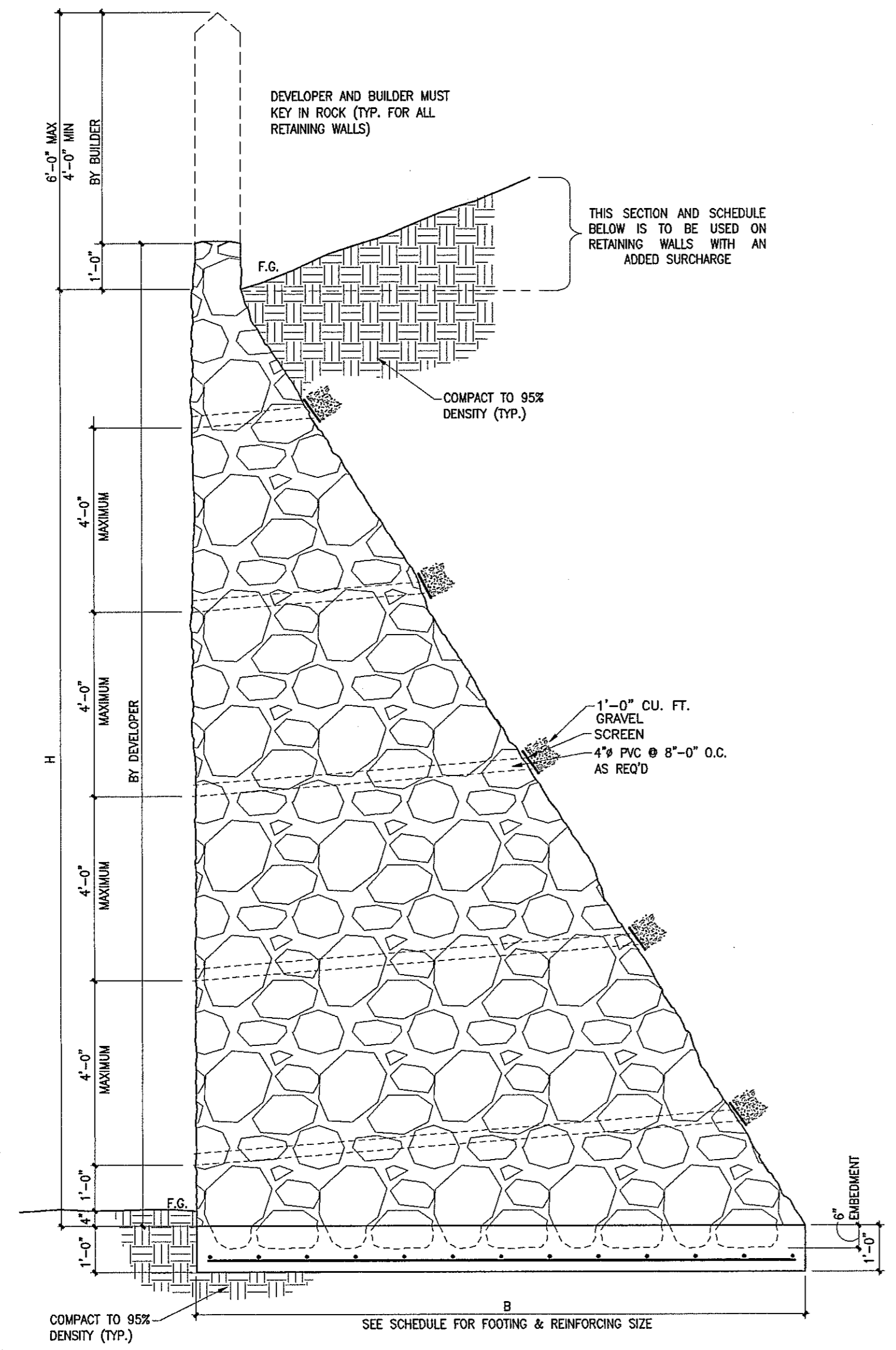
SHEET TITLE: L15

PROJECT DETAILS: SHEET 15 OF 15

LANDSCAPE ARCHITECT: LISA MCNELNIS, 1500 FOXBORO LAS CRUCES, NEM MEXICO 88007 (505) 621-3032

REGISTERED PROFESSIONAL ENGINEER: FAITH MCNELNIS, 8947, LICENSED IRRIGATOR

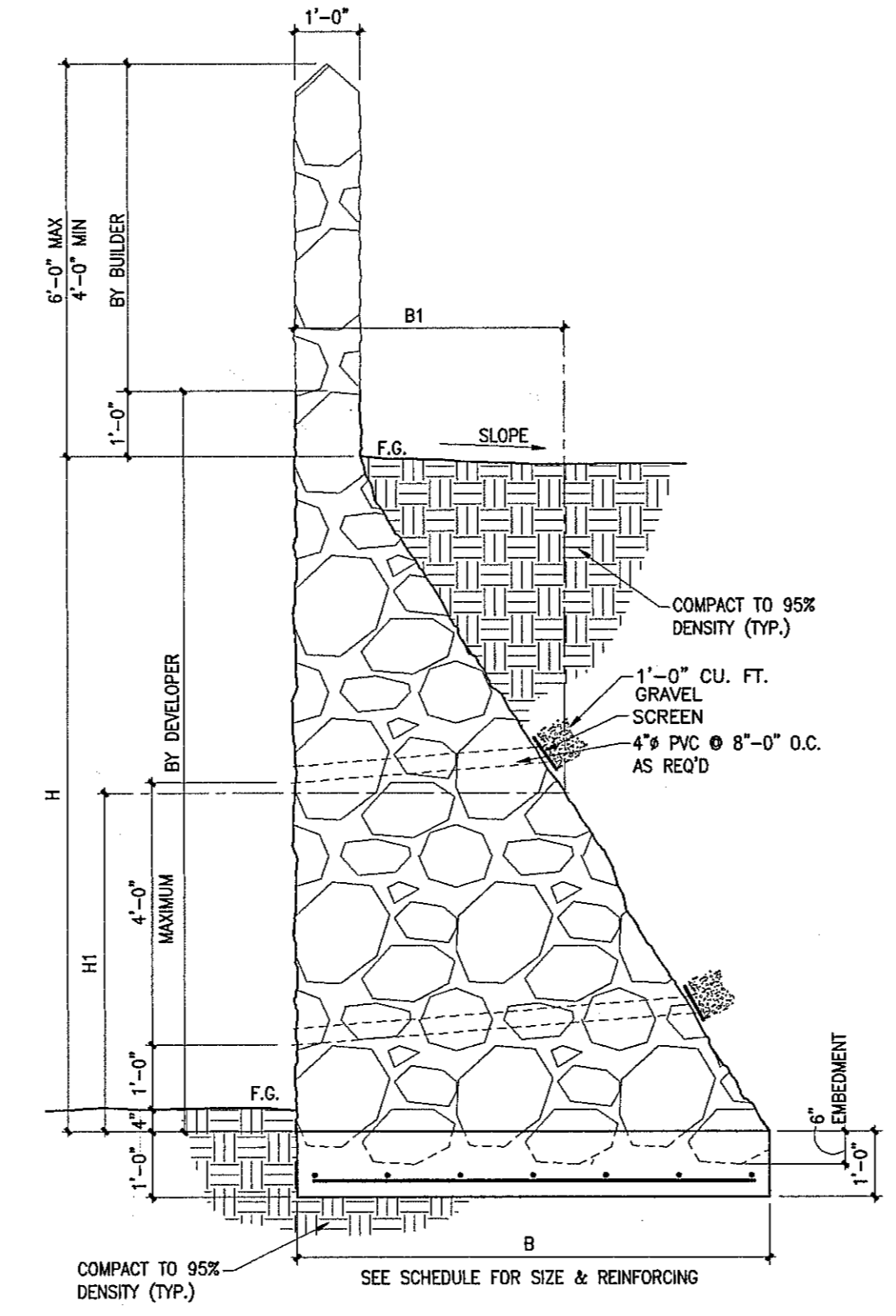
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SECTION 1
S-1
THIS SECTION AND SCHEDULE BELOW IS TO BE USED ON RETAINING WALLS WITH AN ADDED SURCHARGE.

RETAINING WALL SIZE AND REINFORCING

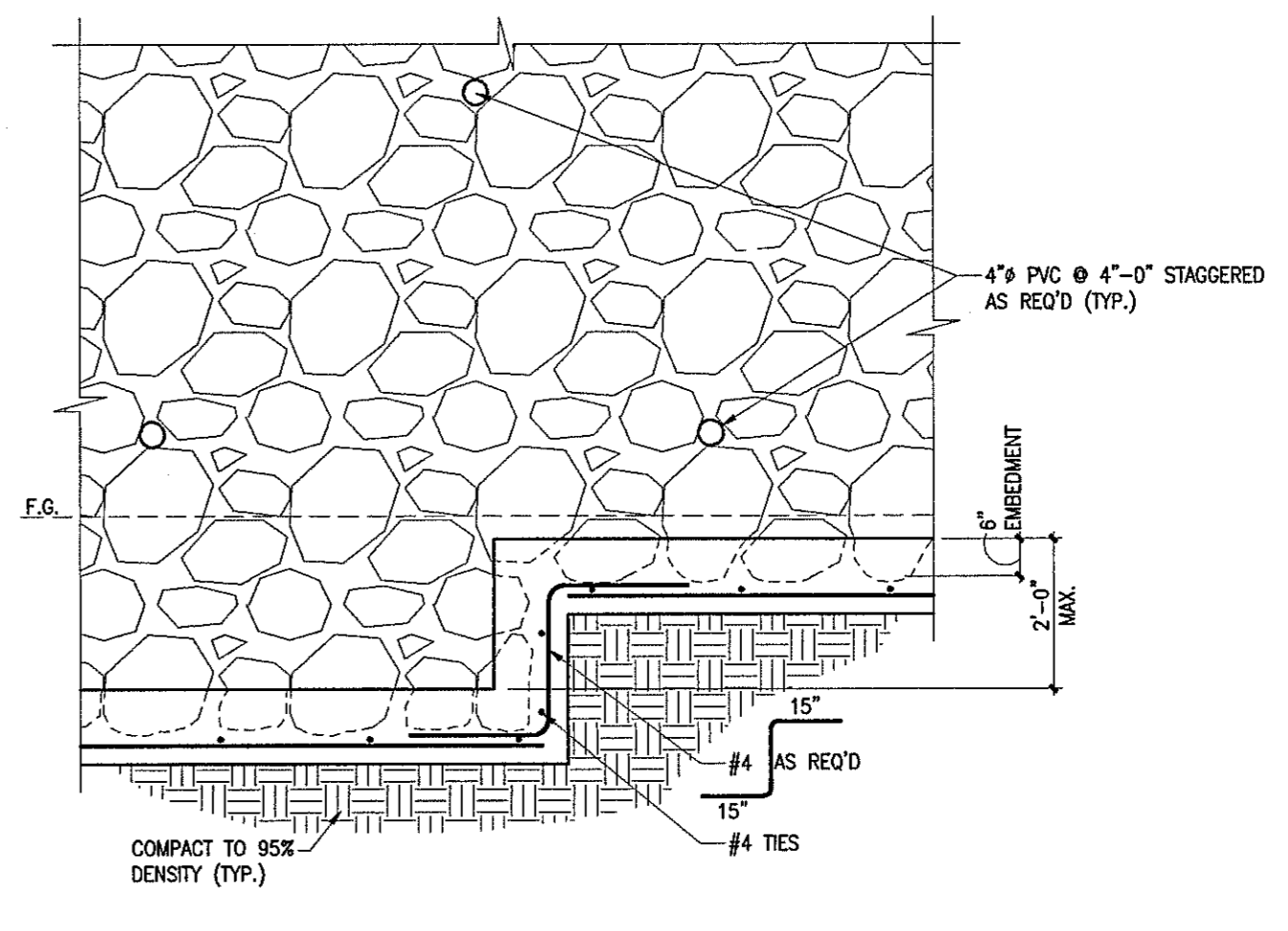
H	B	H1	B1	REINFORCING
18'-4"	15'-6"	9'-2"	7'-9"	15-#5 CONT. W/ #3 @ 24"
16'-4"	14'-0"	8'-2"	7'-0"	14-#5 CONT. W/ #3 @ 24"
14'-4"	13'-6"	7'-2"	6'-9"	13-#5 CONT. W/ #3 @ 24"
12'-4"	8'-6"	6'-2"	4'-3"	8-#5 CONT. W/ #3 @ 24"
10'-4"	7'-9"	5'-2"	3'-11"	8-#5 CONT. W/ #3 @ 24"
8'-4"	7'-0"	4'-2"	3'-6"	7-#5 CONT. W/ #3 @ 24"
6'-4"	4'-9"	3'-2"	2'-5"	5-#5 CONT. W/ #3 @ 24"
4'-4"	4'-0"	3'-2"	2'-0"	4-#5 CONT. W/ #3 @ 24"



SECTION 2
S-1
THIS SECTION AND SCHEDULE BELOW IS TO BE USED ON RETAINING WALLS WITH AN ADDED SURCHARGE.

RETAINING WALL SIZE AND REINFORCING

H	B	H1	B1	REINFORCING
18'-4"	14'-6"	9'-2"	7'-3"	14-#5 CONT. W/ #3 @ 24"
16'-4"	13'-0"	8'-2"	6'-6"	13-#5 CONT. W/ #3 @ 24"
14'-4"	12'-0"	7'-2"	6'-0"	12-#5 CONT. W/ #3 @ 24"
12'-4"	7'-9"	6'-2"	3'-10"	8-#5 CONT. W/ #3 @ 24"
10'-4"	6'-9"	5'-2"	3'-4"	7-#5 CONT. W/ #3 @ 24"
8'-4"	6'-0"	4'-2"	3'-0"	6-#5 CONT. W/ #3 @ 24"
6'-4"	4'-0"	3'-2"	2'-0"	4-#5 CONT. W/ #3 @ 24"
4'-4"	3'-4"	2'-2"	1'-8"	4-#5 CONT. W/ #3 @ 24"



SECTION 3
S-1
THIS SECTION AND SCHEDULE BELOW IS TO BE USED ON RETAINING WALLS WITH AN ADDED SURCHARGE.

- CONSTRUCTION SPECIFICATIONS**
- ALL EXCAVATIONS SHALL BE FREE OF ALL LOOSE AND FOREIGN MATERIAL BEFORE ANY CONCRETE IS PLACED AND ALL AREAS TO RECEIVE CONCRETE SHALL BE THOROUGHLY WETTED PRIOR TO PLACEMENT. EXPOSED SOIL SURFACE SHALL BE COMPACTED TO 95% DENSITY AND ALL BACKFILL SHALL BE COMPACTED IN 8" LIFTS TO 95% DENSITY.
 - ALL CONCRETE SHALL BE 3000 PSI AT 28 DAYS.
 - ALL MORTAR SHALL CONFORM TO ASTM C-270, TYPE S.
 - ALL REINFORCING SHALL BE GRADE 60, ASTM A-615.
 - SOIL UNIT wt=120 pcf
 - SAFETY FACTOR AGAINST OVERTURNING GREATER THAN 2

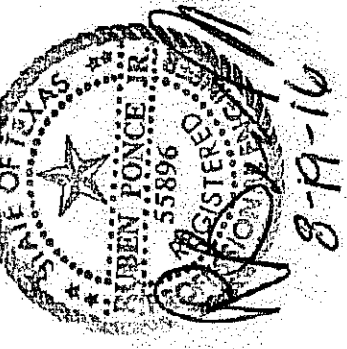


Pe
 STRUCTURAL CONSULTING ENGINEERING
 2417 W. PINE AVE. DALLAS, TEXAS 75241
 P. 972.383.2000 F. 972.383.0010
 813.544.2010
 P. 972.313.4488 FAX F. 972.313.4488
 E-mail: ponceeng@aol.com

REFERENCES — BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF HIGH RIDGE DRIVE AND FRANKLIN HILLS STREET. ELEVATION = 4882.20 (CITY DADOM) CONTOUR INTERVAL: ONE (1) FOOT

DATE	REVISION	BY

QUANTUM
 ENGINEERING CONSULTANTS INCORPORATED
 414 Executive Center Blvd
 Ste 200 El Paso TX 79902
 P 915.532.7272
 F 915.532.7373
 Texas Registered Engineering Firm F-005146



SCALE:
HORIZONTAL: _____
VERTICAL: _____
CONTOUR INTERVAL: _____

DATE: AUGUST 2016
DESIGN BY: _____
DRAWN BY: _____
CHKD BY: _____
APPRD BY: _____
JOB NO.: 1315

PROJECT TITLE
FRANKLIN HILLS UNIT TEN SUBDIVISION IMPROVEMENT PLANS
EL PASO COUNTY, TEXAS

SHEET TITLE
RETAINING WALL DETAILS & SCHEDULE

SHEET NO.
S-1

OF SHEETS