

PROFESSIONAL LAND SURVEYORS

515 PARK GROVE DRIVE, SUITE 102 A KATY, TEXAS 77450 A (281) 829-0034 A FAX (281) 829-0233

CONSTRUCTION NOTES:

- 1. All utilities on these drawings are shown at the approximate locations based on the best available information. The contractor shall field determine the exact locations prior to commencing construction. He shall be fully responded for any and all damages caused by his failure to exactly locate and maintain these underground utilities.
- Adequate drainage shall be maintained at all times during construction and any drainage ditch or structure disturbed during construction shall be restored to the satisfaction of the owning authority.
- Contractor shall be responsible for protecting, maintaining and restoring all drainage sys
- 4. All finished grades shall vary uniformly between finished elevations shown.
- Existing survey prepared by Probstfeld & Associates.
- Some of the existing underground utilities shown hereon have not been field verified.
- Contractor is to notify all utility companies to verify location and depth of all existing utility lines.
- Contractor to obtain all permits required by all governing agencies.
- 9. Caution: UNDERGROUND GAS FACILITIES Entex main lines (to include Unit Gas Transmission, and/or industrial Gas Supply Corporation where applicable) may axist in street fight of way. Service lines are usually not shown. The contractor shall contact the Utility Coordinating Committee at 713-223-4567 or 1-800-569-8344, a minimum of 48 hours prior to construction to have main and service lines field located. The contractor shall determine the exact location before commencing work and agree to be fully responsible for any damages caused by his failure to exactly locate and preserve these underground utilities.
- 10. Telephone Company utilities may not exist in street right of way. The contractor shall determine the exact location before commencing work. He agrees to be fully responsible for any and all damages, which might be occasioned by his failure to exactly locate and preserve these underground utilities.
- 11. Air Conditioning pad not to interfere with drainage.
- 12. Contractor to assure positive drainage to all inlets and street
- 13. Contractor to assure that all trees or landscape areas shall not affect the drainage patters.
- 14. Contractor shall uncover existing utilities at all points of crossing to determine if conflicts exists before comme construction. Notify the engineer immediately of any conflicts.
- 15. Contractor shall assure that drainage from this property does not drain onto adjacent property.
- At no time may runoff from the construction site traverse neighboring property.
 Owner, builder and contractor to verify all proposed elevations prior to any construction and submittals.
- 18. Contractor is to protect existing trees as much as possible and shall not cut roots greater than one half (1/2) inch in diameter. If possible.
- 19. Owner to keep all drainage systems (i.e. drains, pipes, catch basins, inlets, pumps etc.) mainta Insure proper drainage. Inspect systems annually to insure is functioning properly
- 20. All drainage related pipe to be ASTM approved with minimum of SDR 35 pipe for subsurface drainage sys Schedule 40 required for sections under driveways.
- 21. In addition to complying with the specifications required, contractor to adhere with pertinent regulations of government agencies having jurisdiction.

 22. Contractors are responsible for obtaining all required permits and scheduling nece
- All drainage lines to be set on 2 inch sand cushion base unless noted otherwise.
 Backfill for all trenches under concrete items shall be stabilized sand to conform with ASTM C33 standards.
- 25. Trenches in lawn or planting shall have a sand backfill to top of pipes. Excavated material shall be compacted in lifts of 6 inches and to a standard density of 95%.
- 26. Side lot fences shall not obstruct side drainage swale-flow at any time. Set fence pickets at three Inches (3") min. dearance.
- 28. Contractor and owner to take pictures of site prior to construction.
- 29. Downspouts to be connected to underground storm system. (4"Ø PVC SDR 35).
- 30. Once grading is complete, contractor to roll lawn to create uniform grade throughout lawn, use topsoil dressing for any uneven areas.
- Any areas of grass which are disturbed or dug up during construction shall be replaced with St. Augustine or grass which matches the grass removed.
- 32. Any damage to existing road, driveway, sidewalk or other appurtenances shall be saw cut, removed and replaced with material equal to or superior to existing material and be installed to city standards.
- 33. For St. Augustine sodding follow Harris County Sodding for Erosion Control and Stabilization per Item 162 Harris County Specification. Follow Items 162.1-162.4. 34. Any portions of lot unable to establish sod shall be, with owners consent, seeded with certified Bermuda,
- common Bermuda or unshelled Bermuda dependent on seeding season per item 164 Harris County Seeding and Erosion Control Blanket Specifications. Also follow Fertilizer specification 164.3 and construction methods specification 164.7.
- 35. Engineer unable to determine subsurface pipe diameter, grade and condition (not accessible, covered pipe).

IMPERVIOUS COVER ANALYSIS

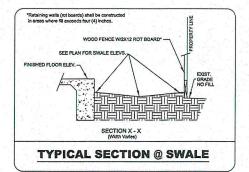
Lot area: 11,825 S.F. Impervious area (residence and concrete): 6,463 S.F. % Impervious Cover = 54.7%

DRAINAGE CALCULATIONS

Drainage computations Based on the rational method: Q = C+I-A; where: Q=C+I-A; where: Q=Cs+I-A; where: A=are a ln acros C=Run-off coeff.; 0.53 (calculated) Calculations based on 2-yr. Frequency = 175.01/ (c+I-C,20Y)-0.815, Rain fall intensity in in/hr, TC = 10xa^0.1761 +15, Time of concentration

Total area = A = 0.2715 AC A(N) = 0.10 AC (sheetflow); A(W) = 0.01 AC; A(E) = 0.03 AC; A(S) = 0.03 AC (sheetflow) C = 0.63 TC= 22.95 MIN C = 3.56 IN/HR Q = 0.51 cfs

ervative area into west drainage system = 4,454 S.F. Q = 0.20 CFS, minimum pipe to convey drainage = 4" PVC @ 0.79%, v = 2.3 fps., Q = 0.20 CFS. Assuming 4" flowline at emitter = -0.52 then 4" PVC = 1.10% > 0.79% OK ervative area into east drainage system = 3,399 S.F. Q = 0.15 CFS, minimum pipe to convey drainage = 4" PVC @ 0.45%, v = 1.7 fps., Q = 0.15 CFS. Assuming 4" flowline at emitter = -0.52 then 4" PVC = 1.20% > 0.45% OK





Part No.	Description	Color	Pkg. Qhy	Wr. Ea.	Product Class	Specifications
4 5	E" Square Grato	Black	10	0.40	10ND	6" Square Structural Fiams Polyolefin Grate with diagonally correcting
5	6" Square Grate	Green	10	0.40	10ND	
6	6" Square Grate	Gray	10	0.40	10ND	patiera with UV inhibitor.
Dez	6" Square Grate	Sand	10	0.40	10ND	Open nurface area 10.40 aquare inches, 31,91 GPM.
京	File 3" or 4" Devert and Drain Ripe beautign File ABA Conspilant/Host-p					
NDS Drai	nage Products https	://www.ndspro.com/P	DFs/Catalo	gs/NDS-E	rainage-	Catalog.pdf



Part No.	Description	Color	Pkg. Chy.	W/L Ea. Brs.	Producti Classs	Specifications
640	6" x 6" x 4" Square Grate & Adapter	Etacie	6	0.83	101(0)	6"x6" Lew-Profile Adapter
641	6" x 6" x 4" Square Gride & Adaptor	Green	8	0.83	1010	and Structural Fasin Polyatetin Removable
642	6" x 6" x 4" Square Grate & Adapter	Gray	8	0.83	10ND	Grate with UV inhibitor and
ni.	Fits 3" or 4" Sewer seed Brain Pipe & Pittings, 3		etainless steel screws. Open surface area 14,44 equare inchos, 44,17 GPM.			
东	read page 74; ADA Caraption\$50d proof.					

ON MOTES - CALCUL ATIONS - DETAILS

FOR:	JUD	Y WALKER DUCK					
AT:	22 AVIANO CIRCLE • MISSOURI CITY, TX						
LGL:	LOT 18, BLOCK 1						
SIENN	A VILLAGE OF B	EES CREEK SECT	ION TWENTY NINE				
SCALE:	1" = 20'	the Allegar Market Market					
DATE:	3/17/2017	REVISED DATE:					
		within the designate 48157C 0295	d 100 year Floodplain L				
		EFF. DATE:					
BASE FLOOD ELEVATION:		N	/A				



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2797-001 _ DRAWN BY:_

