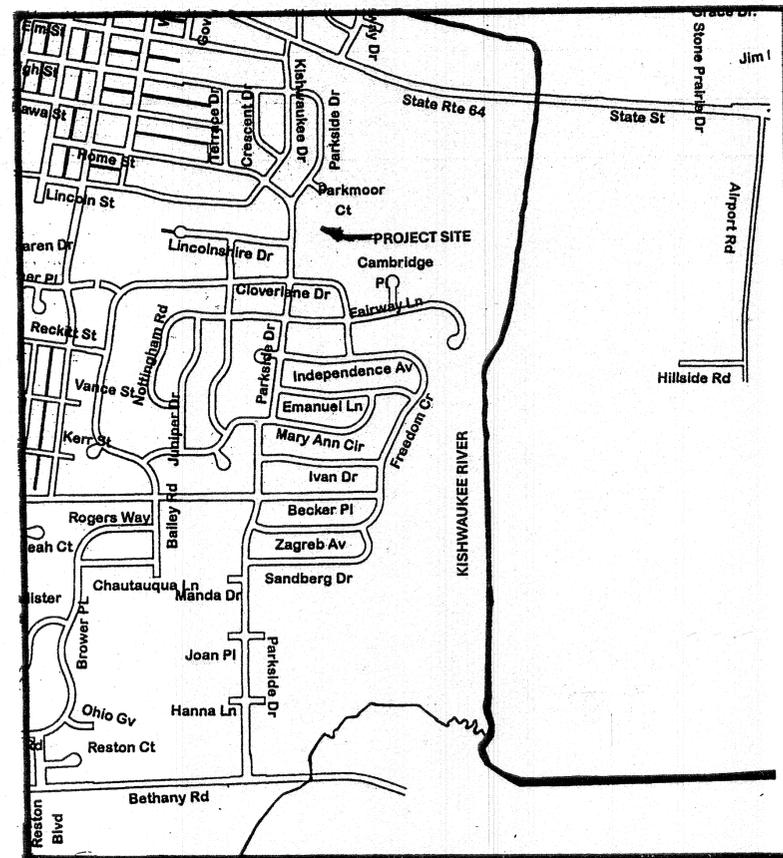


**STORM SEWER/DITCH IMPROVEMENTS
EAST OF PARKSIDE DRIVE
CITY OF SYCAMORE
DEKALB COUNTY, ILLINOIS**

SCALE
PLAN SHEETS: 1 INCH = 20 FEET
DETAIL SHEETS: NTS



LOCATION MAP

SCALE: NTS

INDEX OF SHEETS	
SHEET 1	COVER SHEET
SHEETS 2 - 4	PLAN & PROFILE - 30" LOW FLOW STORM SEWER
SHEET 5	DITCH IMPROVEMENTS - EAST OF PARKSIDE DRIVE
SHEET 6	DETAILS - HEADWALL/WINGWALL STRUCTURE

SUMMARY OF QUANTITIES

PAY ITEM	UNIT OF MEASURE	QUANTITY
TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	4
TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	47
GRANULAR BEDDING & BACKFILL MATL. SPL.	TON	838
GRADING AND SHAPING DITCHES	FOOT	305
SEEDING (COMPLETE)	L SUM	1
EXPLORATORY EXCAVATION	CU YD	20
TEMPORARY EROSION CONTROL SYSTEM	L SUM	1
PRECAST BLOCK EROSION CONTROL MAT	SQ FT	6,190
PCC SIDEWALK 6 INCH SPECIAL	SQ FT	150
SIDEWALK REMOVAL	SQ FT	150
SLOPE WALL REMOVAL	SQ YD	31
CLASS D PATCHES, TYPE II, 3 1/2 INCH	SQ YD	9
PRECAST R.C. FLARED END SECTION, 30"	EACH	1
GRATING FOR FLARED END SECTION, 30"	EACH	1
STORM SEWERS, RCP CLASS 2 (RUB. GASKET), 30"	FOOT	228
STORM SEWERS, RCP CLASS 4 (RUB. GASKET), 30"	FOOT	689
MANHOLES, TYPE A, 5' DIA., SPL. FRAME, CL LID	EACH	5
CATCH BASINS, 6' DIA., SPL. FRAME, CL LID	EACH	1
PRECAST R.C. SEDIMENT BASIN, 4' X 9' X 2.50' DEEP	EACH	1
CONCRETE HEADWALL/WINGWALL STRUCTURE	EACH	1
PAVED CONCRETE DITCH SPECIAL	SQ YD	228
PIPE CULVERT TO BE CLEANED, 68" X 106"	FOOT	95
STORM SEWER TO BE CLEANED, 36"	FOOT	170
STORM SEWER TO BE CLEANED, 42"	FOOT	25
TRAFFIC CONTROL AND PROTECTION	L SUM	1



MUNICIPAL ENGINEERING CORPORATION

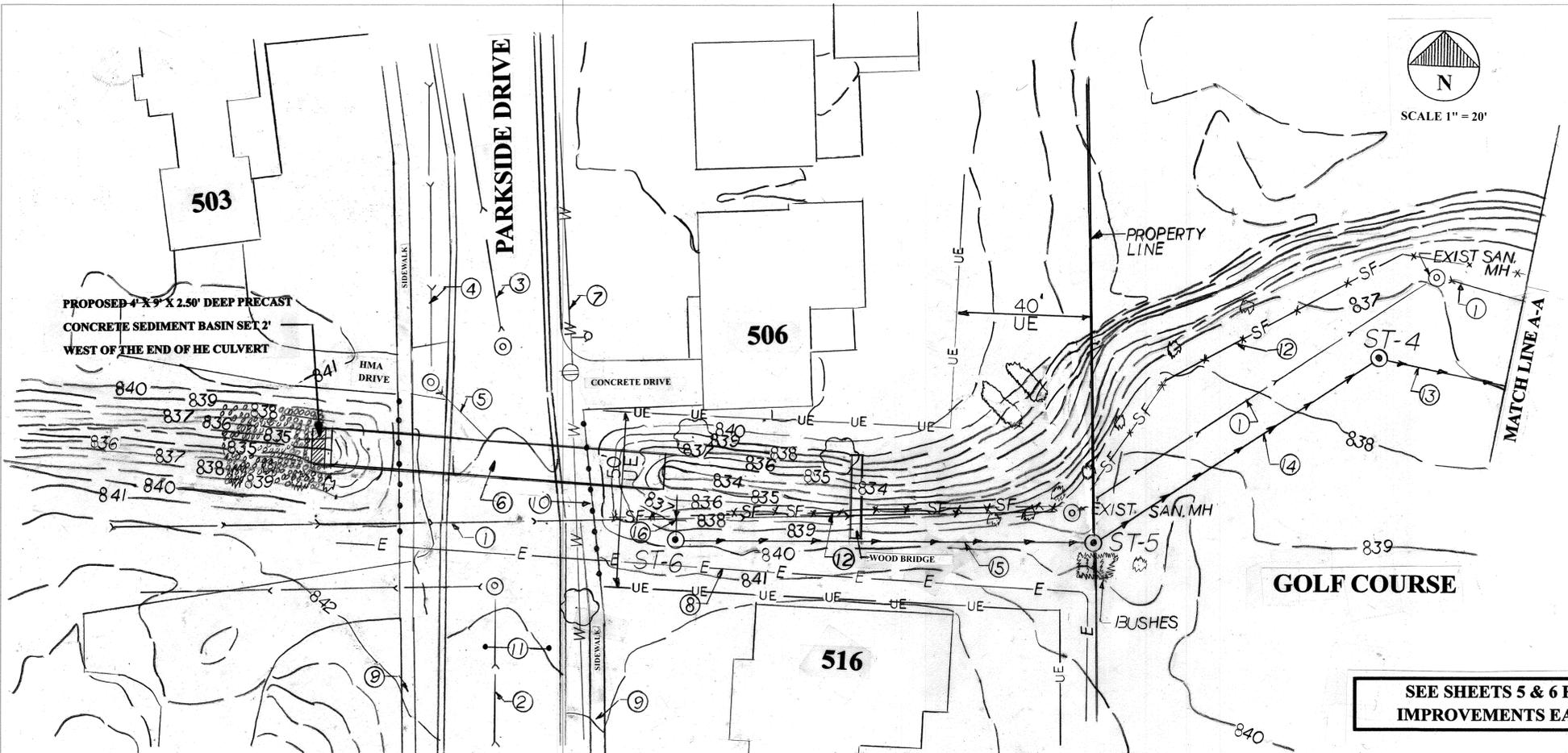
DESIGNED BY JOHN BRADY, P.E.

062-030896-IL REG. NO.

John Brady
SIGNATURE

6-27-2005
DATE

CALL J.U.L.I.E. BEFORE YOU DIG - 811



PLAN NOTES - SHEET 2

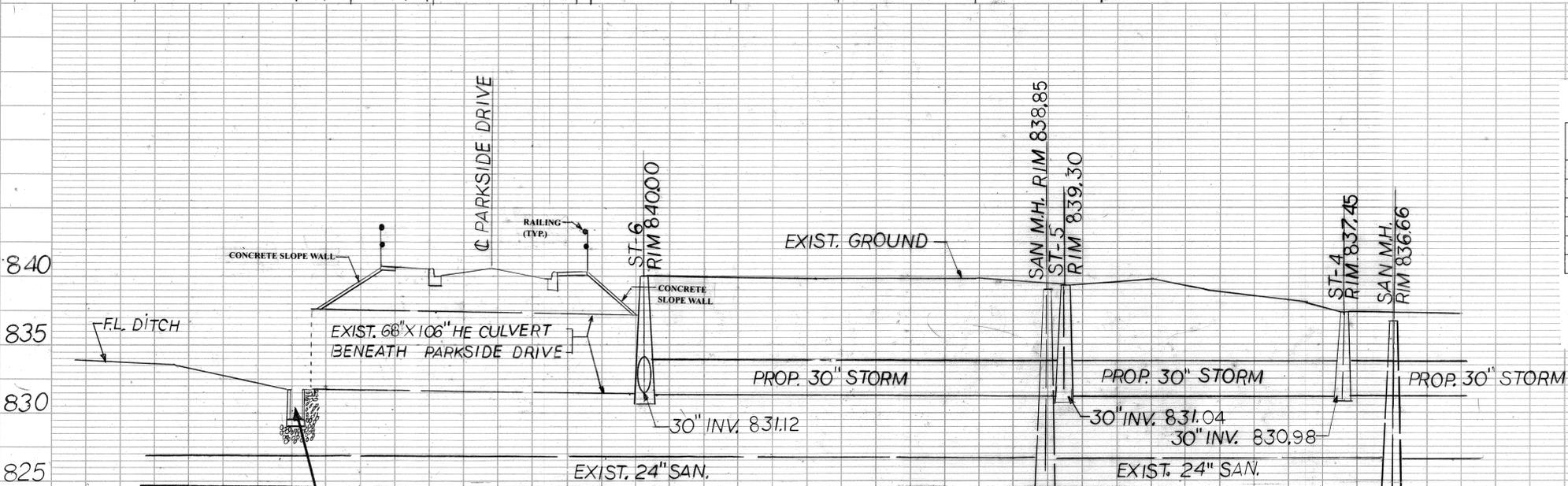
1. EXISTING 24" SANITARY SEWER
2. EXISTING 15" SANITARY SEWER
3. EXISTING 8" SANITARY SEWER
4. EXISTING 36" RCP STORM SEWER (SEWER TO BE CLEANED)
5. EXISTING 42" RCP STORM SEWER (SEWER TO BE CLEANED)
6. EXISTING HE RCP CULVERT 68" X 106" BENEATH PARKSIDE DRIVE TO REMAIN - F.L. (WEST) 831.74 AND F.L. (EAST) 831.28 (CULVERT TO BE CLEANED)
7. EXISTING WATERMAIN
8. EXISTING UNDERGROUND ELECTRICAL FEED
9. EXISTING CONCRETE SIDEWALK ON EACH SIDE OF PARKSIDE DRIVE
10. EXISTING 36" HIGH PIPE RAILING AT BACK OF SIDEWALK ON EACH SIDE OF PARKSIDE DRIVE
11. PARKSIDE DRIVE WITH EXISTING HMA SURFACE AND CURB & GUTTER AND SIDEWALKS ON BOTH SIDES OF STREET
12. CONTRACTOR TO CONSTRUCT SILT FENCE TO INTERCEPT WATER BORNE SILT AND SEDIMENT FROM ENTERING THE ADJOINING OPEN DRAINAGE DITCH.
13. 37'-30" RCP CLASS 4 - RUBBER GASKET JOINTS @0.06% TO ST-4
14. 97'-30" RCP CLASS 2 - RUBBER GASKET JOINTS @0.06% ST-4 TO ST-5
15. 119'-30" RCP CLASS 2 - RUBBER GASKET JOINTS @0.06% ST-5 TO ST-6
16. 12'-30" RCP CLASS 2 - RUBBER GASKET JOINTS @0.25% ST-6 TO WINGWALL

SEE SHEETS 5 & 6 FOR DETAILS OF DITCH IMPROVEMENTS EAST OF PARKSIDE DRIVE

STORM SEWER STRUCTURE SCHEDULE

STRUCTURE NO.	TYPE	DIA.	RIM ELEV.	PIPE ELEVATIONS	CASTING
S-1	M.H.	5'	834.18	30" INV. 830.57	NEENAH R-1646
S-2	M.H.	5'	835.05	30" INV. 830.72	NEENAH R-1772
S-3	M.H.	5'	835.90	30" INV. 830.79	NEENAH R-1772
S-4	M.H.	5'	837.45	30" INV. 830.98	NEENAH R-1772
S-5	M.H.	5'	839.30	30" INV. 831.04	NEENAH R-1772
S-6	C.B.	6'	840.00	30" INV. 831.12	NEENAH R-1772

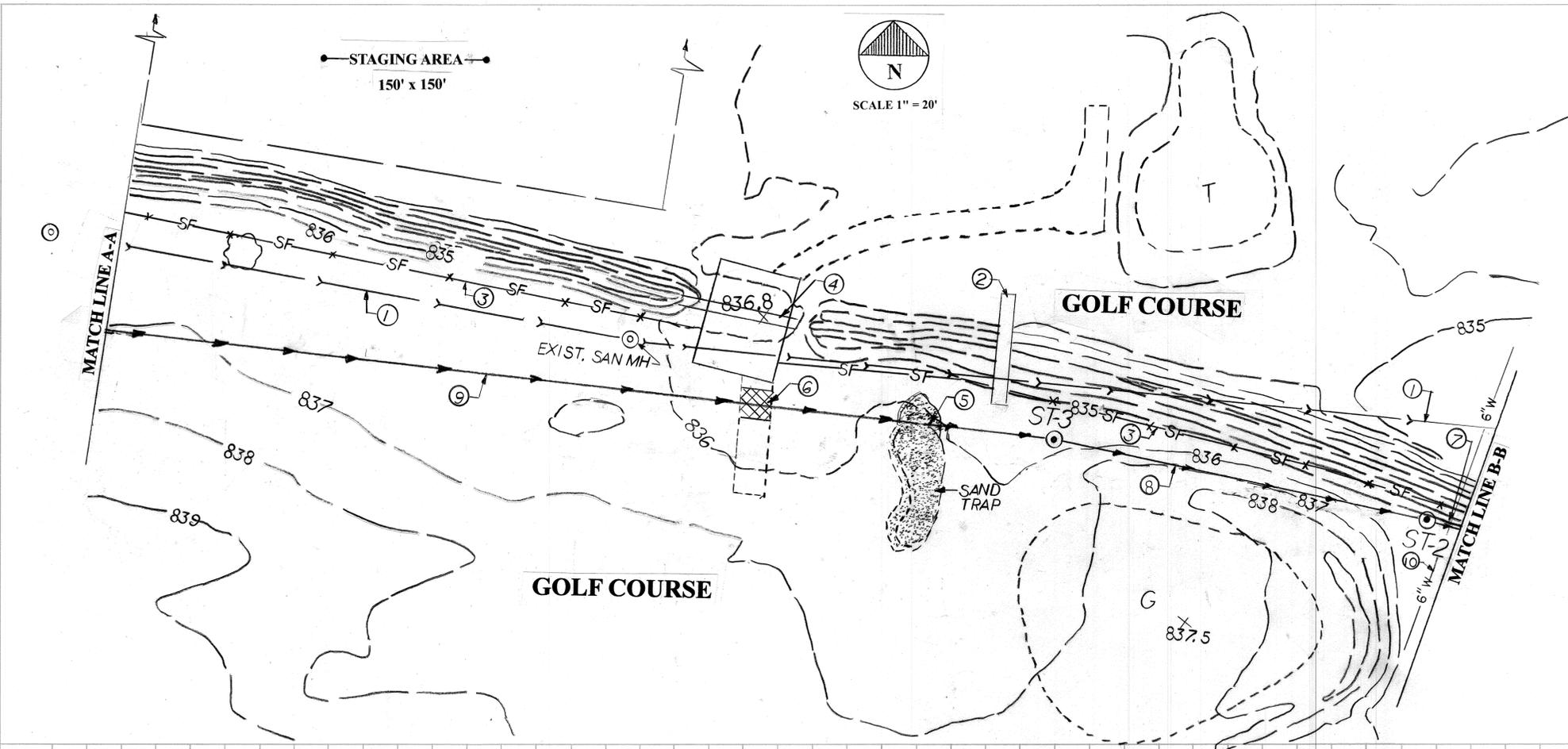
1. ALL STRUCTURES TO HAVE 5" THICK WALLS.
2. ALL STRUCTURES TO HAVE FLEXIBLE RUBBER BOOTS FOR ALL PIPE CONNECTIONS.
3. ALL MANHOLES TO HAVE POURED CONCRETE FLOW LINES.
4. FOR ST-1, NOTCH THE TOP OF THE 30" RCP TO FIT PRECAST CONCRETE FLAT TOP THEREON.
5. ST-6 TO HAVE 2' DEEP SUMP.



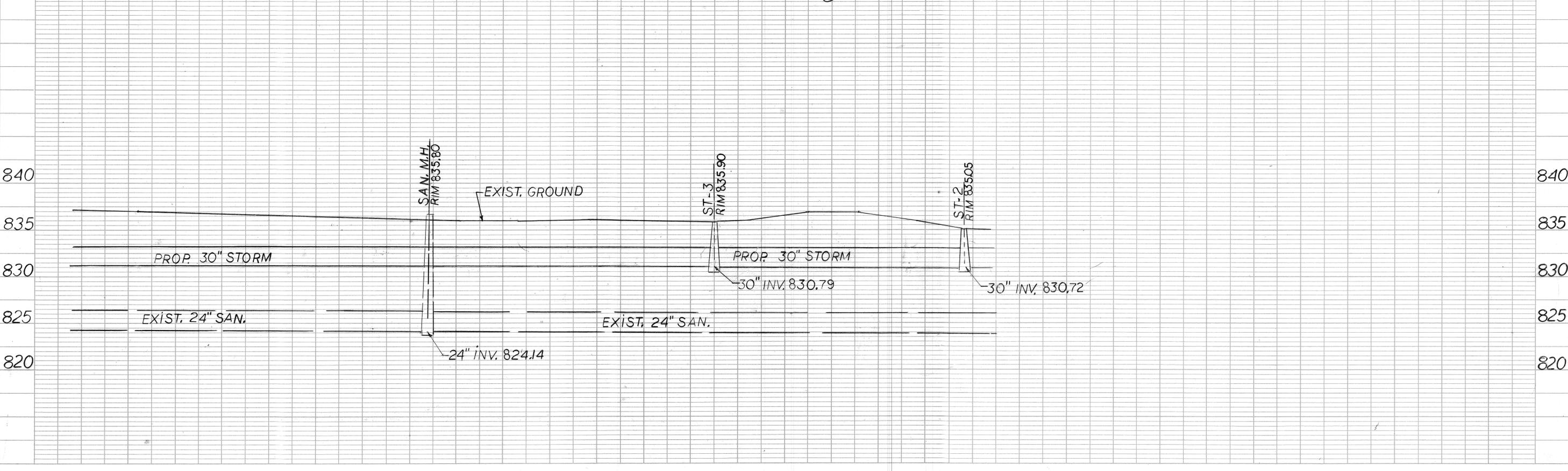
PROVIDE A 4' X 9' X 2.50' DEEP PRECAST CONCRETE SEDIMENT BASIN OVER A 12" CA-7 CRUSHED STONE BASE. EAST EDGE OF THE BASIN TO BE SET 2' WEST OF THE WEST END OF THE HE RCP CULVERT. POUR AN 8" DEEP CONCRETE TRANSITION PAD FROM THE EAST EDGE OF THE BASIN TO THE HE PIPE. PROVIDE 3/4" EXPANSION TIE ANCHORS AT 12" CENTERS INTO BOTH THE SEDIMENT BASIN AND THE HE RCP CULVERT. COST OF TRANSITION PAD TO BE INCIDENTAL TO THE LUMP SUM PRICE OF THE PRECAST CONCRETE SEDIMENT BASIN. GRADE AND SHAPE THE DITCH 25' UPSTREAM OF THE PROPOSED SEDIMENT BASIN AND LINE THE CHANNEL AND BANKS OF THE DITCH WITH A VEGETATED PRECAST CONCRETE BLOCK EROSION CONTROL MAT WITH A DOUBLE NET COCONUT BACKING OVER 4" TOPSOIL & SEEDING.

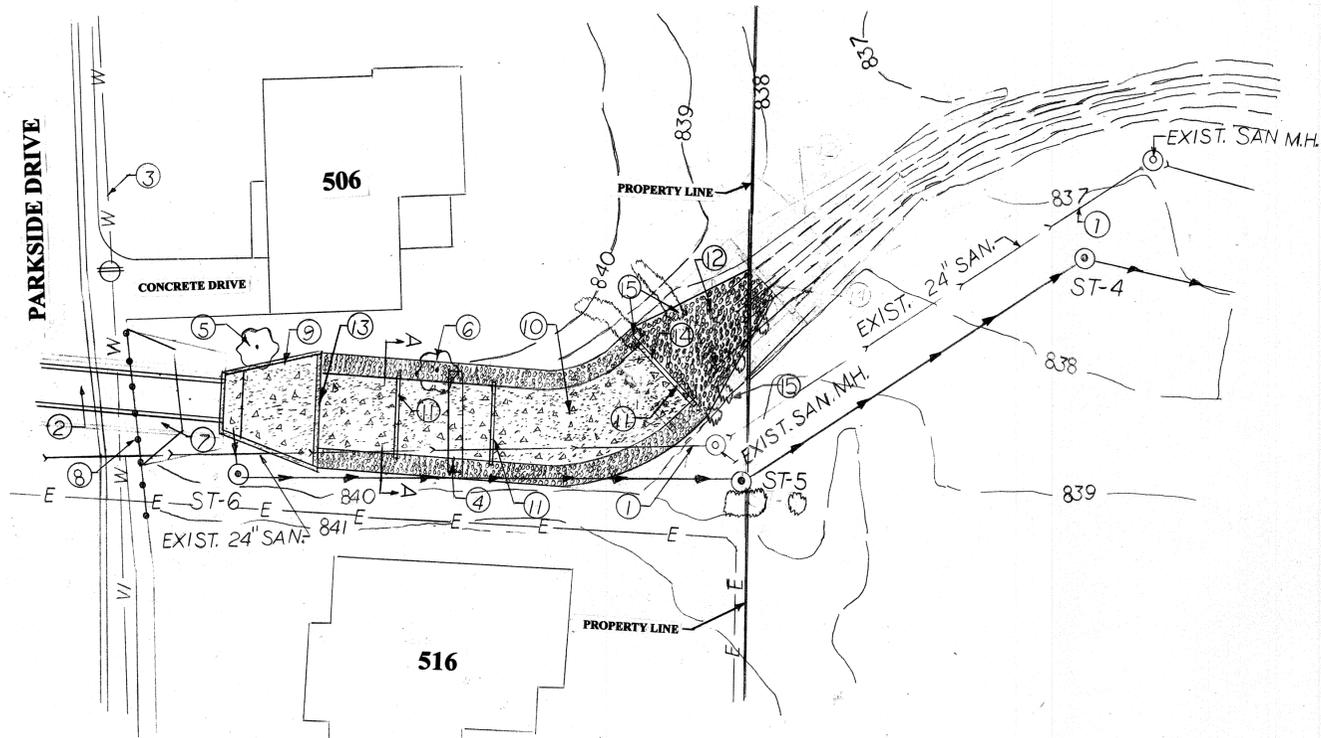
PLAN
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. _____

PROFILE
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. _____



- PLAN NOTES - SHEET 3**
1. EXISTING 24" SANITARY SEWER
 2. EXISTING BRIDGE
 3. CONTRACTOR TO CONSTRUCT SILT FENCE TO INTERCEPT WATER BORNE SILT AND SEDIMENT FROM ENTERING THE ADJOINING OPEN DRAINAGE DITCH.
 4. HMA PATH CROSSING WITH 48" RCP CULVERT BENEATH WITH A FLARED END SECTION ON EACH END. F.L. ELEV. (WEST) 832.41 AND F.L. ELEV. (EAST) 831.91.
 5. BACKFILL STORM SEWER TRENCH WITH CA-7 CRUSHED STONE ACROSS SAND TRAP AREA AND TOP WITH 6" OF CA-6 CRUSHED STONE AND COVER WITH 12" OF SALVAGED SAND FROM THIS AREA.
 6. BACKFILL STORM SEWER TRENCH WITH CA-7 CRUSHED STONE ACROSS HMA GOLF CART PATH AND TOP WITH 6" OF CA-6 CRUSHED STONE AND COMPLETE 3 1/2" HMA PAVEMENT PATCHING.
 7. 11'-30" RCP CLASS 4 - RUBBER GASKET JOINTS @0.06% TO ST-2
 8. 110'-30" RCP CLASS 4 - RUBBER GASKET JOINTS @0.06% ST-2 TO ST-3
 9. 276'-30" RCP CLASS 4 - RUBBER GASKET JOINTS @0.06%
 10. EXISTING 6" PVC WATER IRRIGATION LINE WITH 5.50'± OF COVER. CONTRACTOR TO COMPLETE EXPLORATORY EXCAVATION TO CONFIRM ELEVATION



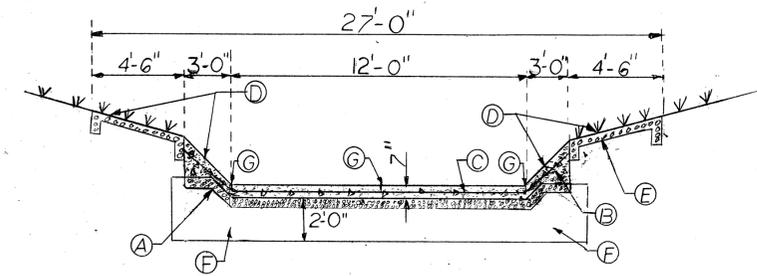


DITCH IMPROVEMENTS – EAST OF PARKSIDE DRIVE

SCALE: NTS

PLAN NOTES – DITCH IMPROVEMENTS

1. EXISTING 24" SANITARY SEWER
2. EXISTING 68" X 106" HE RCP CULVERT (CULVERT TO BE CLEANED)
3. EXISTING WATERMAIN
4. EXISTING 3' X 24' WOOD BRIDGE TO BE REMOVED BY THE SYCAMORE PUBLIC WORKS DEPT. BEFORE SEWER WORK BEGINS
5. REMOVE EXISTING 20" DIAMETER TREE AND STUMP
6. REMOVE EXISTING 27" DIAMETER TREE AND STUMP
7. REMOVE 31 S.Y. 6" CONCRETE SLOPE WALL. DO NOT REPLACE.
8. EXISTING 36" HIGH PIPE RAILING AT BACK OF SIDEWALK. REMOVE AND REPLACE AS NECESSARY.
9. PROPOSED REINFORCED CONCRETE HEADWALL/WINGWALL STRUCTURE
10. PROPOSED 100 L.F. OF CONCRETE PAVED DITCH @0.50% SLOPE. ELEVATION OF F.L. OF PAVED DITCH AT EAST WALL OF HEADWALL/WINGWALL STRUCTURE IS 834.27 (WEST EDGE) AND 834.10 (EAST EDGE). PROVIDE 4" TOPSOIL, FINE GRADE, SEED AND INSTALL A VEGETATED CONCRETE BLOCK EROSION CONTROL MAT WITH A DOUBLE NET COCONUT BACKING ABOVE BOTH SIDES OF THE CONCRETE PAVED DITCH.
11. PROVIDE 12" WIDE CONCRETE ANCHOR WALLS AT THREE LOCATIONS WHICH ARE 24" BELOW THE BOTTOM OF THE PAVED DITCH AND 1' WIDER ON EACH SIDE OF THE PAVED DITCH.
12. GRADE AND SHAPE 40' OF THE EXISTING DITCH AS DIRECTED BY THE ENGINEER AND PROVIDE 4" TOPSOIL, FINE GRADE, SEED AND INSTALL A VEGETATED CONCRETE BLOCK EROSION CONTROL MAT WITH A DOUBLE NET COCONUT BACKING ON THE CHANNEL AND BANKS OF THE DITCH.
13. DEPTH OF CONCRETE PAVED DITCH TO BE INCREASED TO 12" WITHIN 2' OF THE EAST WALL OF THE HEADWALL/WINGWALL STRUCTURE AND PROVIDE 18" LONG NO. 6 REINFORCEMENT BARS DRILLED 3" INTO THE EAST WALL OF THE STRUCTURE AT 12" CTS.
14. ELEVATION OF CONCRETE PAVED DITCH AT EAST END IS 833.60
15. REMOVE BUSHES FOR DITCH GRADING INCLUDING THOSE IN THE RAISED LANDSCAPE PLANTERS. COST OF REMOVAL OF BUSHES IS INCIDENTAL TO GRADING AND SHAPING THE EXISTING DITCH.

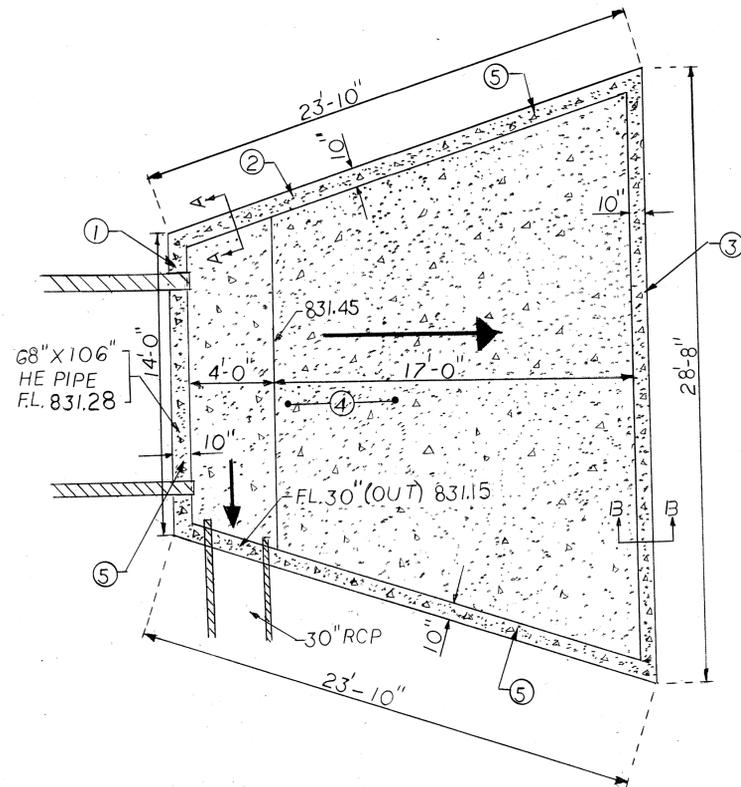


SECTION – CONCRETE PAVED DITCH

SCALE: NTS

NOTES – CONCRETE PAVED DITCH

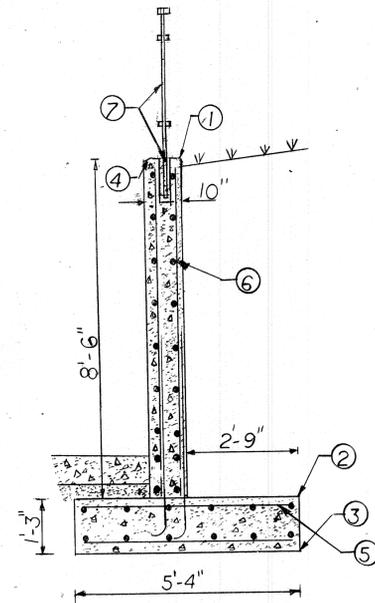
- A. PROVIDE 6" COMPACTED CA-7 CRUSHED STONE BENEATH CONCRETE PAVED DITCH.
- B. THICKEN OUTER EDGE OF CONCRETE PAVED DITCH TO BE 15" DEEP X 12" WIDE (ENTIRE LENGTH ON BOTH SIDES)
- C. PROVIDE WELDED WIRE REINFORCEMENT AT MID DEPTH (W4 WIRE X W6.5 WIRE) APPROXIMATE WEIGHT OF 63 LBS./100 S.F.
- D. THE SIDE SLOPE FOR THE CONCRETE PAVED DITCH TO BE 1H:1V. THE SLOPE FOR THE ADJOINING VEGETATED PRECAST CONCRETE BLOCK EROSION CONTROL MAT TO BE 2H:1V.
- E. FURNISH AND INSTALL VEGETATED PRECAST CONCRETE BLOCK EROSION CONTROL MAT WITH A DOUBLE NET COCONUT BACKING FOR BANK STABILIZATION OVER 4" TOPSOIL AND SEEDING. SECURE THE MAT WITH 18" LONG, 1/2" DIAMETER GALVANIZED STEEL U SHAPED ANCHORS. SPACING OF ANCHORS TO BE ONE ANCHOR FOR MAXIMUM 40 S.F. OF MAT AREA.
- F. PROVIDE 12" WIDE X 24" DEEP CONCRETE ANCHOR WALLS AS SHOWN ON THE PLAN. (TOTAL OF 3 REQUIRED) ANCHOR WALLS TO BE 12" WIDER ON EACH SIDE OF THE PAVED DITCH WITH THE DEPTH BEING 24" BELOW THE BOTTOM OF THE 7" SLAB. THE WELDED WIRE REINFORCEMENT TO BE BENT DOWN INTO EACH OF THE ANCHOR WALLS.
- G. PROVIDE 1 3/4" DEEP SAWED LOGITUDINAL JOINTS FOR THE TOTAL LENGTH OF THE PAVED DITCH (3 REQUIRED) AND 1 3/4" SAWED TRANSVERSE JOINTS AT 8' MAXIMUM CTS.



R.C. HEADWALL/WINGWALL STRUCTURE
SCALE: NTS

NOTES – HEADWALL/WINGWALL STRUCTURE

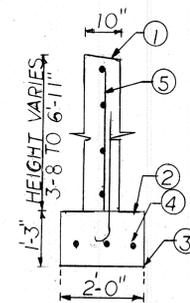
1. PROPOSED HEADWALL TO BE CONSTRUCTED AT THE END OF THE EXISTING 68" X 108" HE RCP CULVERT.
2. SEE DETAILS ON SECTION A-A AND SECTION B-B FOR CONCRETE FOOTING/WALL DIMENSIONS AND REINFORCING STEEL.
3. THE EAST EDGE OF THE EAST WALL OF THE HEADWALL/WINGWALL STRUCTURE TO BE DEPRESSED TO BE AT THE SAME ELEVATION AS THE ADJOINING CONCRETE PAVED DITCH AND THE ADJOINING VEGETATED PRECAST CONCRETE BLOCK EROSION CONTROL MAT. THE CENTER 12' OF THE EAST WALL TO BE AT ELEVATION 834.27 (WEST EDGE) AND 834.10 (EAST EDGE) AND SHALL MATCH THE ELEVATION OF THE ADJOINING SLOPED PAVED DITCH AND VEGETATED PRECAST CONCRETE BLOCK EROSION CONTROL MAT.
4. PROVIDE POURED CONCRETE FILLET AT ELEVATION 831.45 4' OUT FROM THE EAST FACE OF THE HEADWALL AND SHAPE FLOW LINE TO DRAIN TO THE 30" RCP AND ALSO SLOPE UP TO THE OVERFLOW WEIR 17' TO THE EAST. PROVIDE 18" LONG NO. 6 REINFORCEMENT BARS DRILLED 3" INTO ALL OF THE ADJOINING CONCRETE WALL AT 12" CTS. (TYP.)
5. TOP OF CONCRETE HEADWALL/WINGWALL TO BE AT ELEVATION 839.10.



SECTION A - A
SCALE: NTS

NOTES – SECTION A-A

1. TOP OF CONCRETE WALL TO BE AT ELEVATION 839.10
2. TOP OF CONCRETE FOOTING TO BE AT ELEVATION 830.60
3. BOTTOM OF CONCRETE FOOTING TO BE AT ELEVATION 829.35
4. PROVIDE 3/4" CHAMFER (TYP.)
5. FOOTING REINFORCEMENT: BOTTOM LAYER OF STEEL – NO. 5 BARS @ 12" CTS. BOTH WAYS WITH CORNER BARS. PROVIDE 3" CLEARANCE TO THE BOTTOM. TOP LAYER OF STEEL – NO. 5 BARS @ 12" CTS. BOTH WAYS WITH CORNER BARS. PROVIDE 2" CLEARANCE TO THE TOP. IN ADDITION, PROVIDE TWO ROWS OF NO. 5 HOOK BARS 5' LONG STUBBED UP INTO WALL ABOVE AT 6" CTS.
6. WALL REINFORCEMENT: TWO ROWS OF NO. 5 BARS @ 12" CTS. BOTH WAYS WITH CORNER BARS. PROVIDE 2" CLEARANCE TO EACH FACE OF WALL.
7. PROVIDE 4" PVC PIPE SLEEVES, 15" LONG CAST IN THE TOP OF THE HEADWALL/WINGWALL AT 6" MAXIMUM CTS. FOR THE PROPOSED 48" HIGH BLACK POWDER COATED STEEL ORNAMENTAL FENCE TO BE CONSTRUCTED ON THE TOP OF THE CONCRETE WALL.
8. MINIMUM 8" CONCRETE FILLET OVER VARIABLE DEPTH OF COMPACTED CA-6 CRUSHED STONE. PROVIDE 18" LONG NO. 6 BARS DRILLED 3" INTO ALL OF THE ADJOINING CONCRETE WALLS AT 12" CTS. (TYP.)



SECTION B - B
SCALE: NTS

NOTES - SECTION B-B

1. TOP OF CONCRETE WALL ELEVATION VARIES WITH THE EAST EDGE OF THE WALL MATCHING THE ADJOINING ELEVATION OF THE CONCRETE PAVED DITCH AND THE VEGETATED PRECAST CONCRETE BLOCK EROSION CONTROL MAT AND THE WEST EDGE BEING 2" HIGHER THAN THE EAST EDGE. THE CENTER 12' OF THE EAST WALL TO BE AT ELEVATION 834.27 (WEST EDGE) AND 834.10 (EAST EDGE) AND SHALL MATCH THE ELEVATION OF THE ADJOINING SLOPED PAVED DITCH AND VEGETATED PRECAST CONCRETE BLOCK EROSION CONTROL MAT.
2. TOP OF CONCRETE FOOTING TO BE AT ELEVATION 830.60
3. BOTTOM OF CONCRETE FOOTING TO BE AT ELEVATION 829.35
4. FOOTING REINFORCEMENT: THREE NO. 5 BARS CONTINUOUS WITH CORNER BARS. PROVIDE 3" CLEARANCE TO BOTTOM. IN ADDITION, PROVIDE NO. 5 HOOK BARS 4' LONG STUBBED UP INTO WALL ABOVE AT 12" CTS.
5. WALL REINFORCEMENT: NO. 5 BARS @ 12" CTS. BOTH WAYS WITH CORNER BARS. WALL REINFORCEMENT TO BE CENTERED IN 10" WALL SPACE.