CONSTRUCTION PLANS

COTTAGES OF HOPE

11404 HOPE INTERNATIONAL DR
TAMPA, FL 33625
STR 13/28S/17E
FOLIO NO. 003690-0000

PREPARED FOR:

HOPE INTERNATIONAL MINISTRIES INC
11415 HOPE INTERNATIONAL DR,
TAMPA, FL 33625-3963

SHEET	DESCRIPTION
C-1	COVER SHEET
C-2	SITE & HORIZONTAL CONTROL PLAN
C-3	GRADING AND DRAINAGE PLAN
C-4	X-SECTIONS AND DRAINAGE DETAILS
C-5	LANDSCAPE PLAN
C-6	AEROBIC SEPTIC PLAN
C-7	FIRE TANK PLAN
C-8	PHASING PLAN
C-9	BASIN MAPS
C-10	EXISTING CONDITIONS & DEMOLITION PLAN
C-11	IMPAIRED WATER TREATMENT PLAN

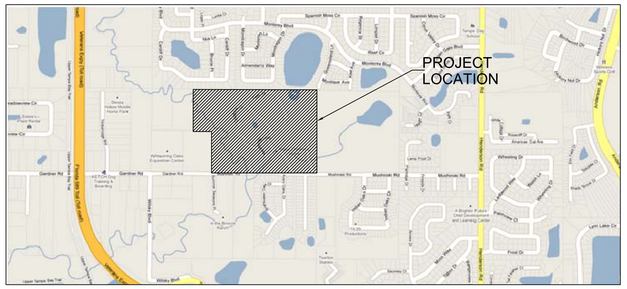
INDEX OF DRAWINGS

LEGAL DESCRIPTION: (OVERALL PARCEL)
THE EAST $\frac{1}{4}$ OF THE NORTHWEST $\frac{1}{4}$ OF THE NORTHWEST $\frac{1}{4}$, LESS THE SOUTH 25 FEET THEREOF, AND THE NORTH $\frac{1}{2}$ OF THE WEST $\frac{1}{2}$ OF THE EAST $\frac{1}{2}$ OF THE NORTHWEST $\frac{1}{4}$ OF THE NORTHWEST $\frac{1}{4}$ OF SECTION 13, TOWNSHIP 28 SOUTH, RANGE 17 EAST, HILLSBOROUGH COUNTY, FLORIDA.

AND

THE WEST $\frac{3}{4}$ OF THE NORTHEAST $\frac{1}{4}$ OF THE NORTHWEST $\frac{1}{4}$ OF SECTION 13, TOWNSHIP 28 SOUTH, RANGE 17 EAST, HILLSBOROUGH COUNTY, FLORIDA; LESS THE SOUTH 25 FEET THEREOF, AND LESS THE NORTH 15 FEET OF THE WEST $\frac{1}{2}$ OF THE EAST $\frac{1}{2}$ OF THE NORTHEAST $\frac{1}{4}$ OF THE NORTHWEST $\frac{1}{4}$ OF SECTION 13, TOWNSHIP 28 SOUTH, RANGE 17 EAST, HILLSBOROUGH COUNTY, FLORIDA.

LEGAL DESCRIPTION



LOCATION MAP

SITE PREPARATION AND EARTHWORK NOTES

1. EXCAVATION

CONTRACTOR SHALL PROVIDE SHORING, SHEETING, AND BRACING AS MAY BE NECESSARY TO PROPERLY ACCOMPLISH THIS WORK. UNDERGROUND UTILITIES TO REMAIN FROM DAMAGE. SHOULD ANY UTILITIES BE ENCOUNTERED THAT ARE NOT INDICATED ON THE PLANS NOTIFY THE OWNER'S REPRESENTATIVE.

a) DISPOSAL: SURPLUS MATERIAL FROM EXCAVATIONS, TRASH, DEBRIS AND MATERIALS RESULTING FROM CLEARING, GRUBBING, AND OTHER OPERATIONS SHALL BECOME THE PROPERTY OF CONTRACTOR AND SHALL BE DISPOSED OF BY REMOVING FROM THE SITE.

b) CLEARING AND GRUBBING: CLEAR AND GRUB TO REMOVE STUMPS, ROOTS, TREES, VEGETATION, ORGANIC MATERIALS, EXISTING PAVEMENT, STRUCTURES AND OTHER OBSTRUCTIONS TO THE WORK. ALL ORGANIC SOILS OR MUCK SHALL BE REMOVED AND BACKFILLED WITH SUITABLE MATERIALS.

STRIP THE TOPSOIL FROM ALL AREAS WITHIN THE LIMITS OF CLEARING AND GRUBBING AND STOCKPILE ON THE SITE. TOPSOIL MAY BE SPREAD OVER AREAS OUTSIDE BUILDING AND PAVING LINES UPON COMPLETION OF ROUGH GRADING.

2. GRADING

GRADE THE SITE TO THE FINISHED CONTOURS INDICATED. IMMEDIATELY BEFORE REQUESTING FINAL INSPECTIONS, CHECK THE LINES AND DRESS TO THE PROPER CONTOURS. ALL AREAS ARE TO BE STABILIZED. THESE AREAS ARE TO BE MAINTAINED UNTIL ACCEPTANCE BY OWNER. WHEN SOD, PLANT BEDS, GRAVEL AREAS AND THE LIKE ARE INDICATED ON LANDSCAPE DRAWINGS OR SPECIFIED, MAKE ALLOWANCES WHEN ROUGH GRADING FOR THE FINISHED GRADES IN THESE AREAS.

a) BORROW: SUITABLE EXCAVATED MATERIAL, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, MAY BE USED FOR GRADING. PROCURE ADDITIONAL MATERIALS, WHERE NECESSARY, FROM BORROW PITS APPROVED BY THE OWNER'S REPRESENTATIVE AND FURNISH AT NO ADDITIONAL COST TO THE OWNER. BORROW MATERIALS SHALL HAVE PLASTIC INDEX OF SIX (6) OR LESS WITH A MAXIMUM OF 20 PERCENT PASSING A 200 SIEVE.

b) COMPACTION: AREAS OUTSIDE OF BUILDING AND PAVING LINES SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY (ASSHTO T-180) AT OPTIMUM MOISTURE (ASTM D 1556).

PAVING AND DRAINAGE CONSTRUCTION NOTES

1. REPORT OF SUBSURFACE CONDITIONS

A COPY OF THE SOILS INVESTIGATIONS REPORT IS AVAILABLE FROM TAMPA CIVIL DESIGN LLC., TELEPHONE NUMBER (727) 487-3497.

THE ENGINEER DISCLAMS ALL RESPONSIBILITY FOR FINDINGS AND INTER-PRETATIONS EXPRESSED IN THE REPORT BY THE TESTING LABORATORY. CONTRACTOR SHALL MAKE WHATEVER SUBSURFACE INVESTIGATIONS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO THE ACTUAL FIELD CONDITIONS.

2. TESTING

THE CONTRACTOR WILL PAY FOR ALL TEST REQUIRED BY HILLSBOROUGH COUNTY EXCEPT THOSE PROVING SATISFACTORY OPERATION OF ALL INSTALLED EQUIPMENT, PRESSURE AND LEAKAGE TEST, AND BACTERIOLOGICAL TESTS, FOR PIPE, STRUCTURES, AND ASPHALTIC MATERIALS. THE MANUFACTURER'S OR SUPPLIER'S CERTIFICATE THAT THE MATERIALS MEET THE REQUIREMENTS OF THE OWNER'S REPRE-SENTATIVES. ANY TESTS WHICH HAVE TO BE MADE BECAUSE OF THE FAILURE OF INSTALLED MATERIALS TO MEET SPECIFICATIONS SHALL BE PAID FOR BY THE CONTRACTOR AND COSTS OF ANY SUCH TESTS SHALL BE DEDUCTED FROM PAYMENTS DUE THE CONTRACTOR.

THE OWNER WILL RETAIN A CERTIFIED ENGINEERING TESTING LABORATORY TO PERFORM ALL MATERIALS TESTING SPECIFIED IN THE TECHNICAL SPECIFICATION AND AS MAY BE REQUIRED BY THE APPROPRIATE GOVERNMENTAL AGENCY HAVING JURISDICTION. THE REQUIRED MATERIALS TESTING IS SUMMARIZED HEREIN ON THE ATTACHED TABLE FOR THE SUBCONTRACTOR TO ENSURE THAT THE REQUIRED TESTING HAS BEEN MADE PRIOR TO COVERING UP ANY OF THE WORK.

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FROM THE OWNER PRIOR TO COMMENCEMENT OF CONSTRUCTION AND THOROUGHLY REVIEWING AND UNDERSTANDING ALL PERMIT CONDITIONS. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS THE PERMITS. ANY ADDITIONAL CONSTRUCTION/BUILDING PERMITS REQUIRED TO EXECUTE/COMPLETE THE WORK SHOWN IN THESE DOCUMENTS SHALL BE OBTAINED BY THE CONTRACTOR.

2. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE LATEST EDITION OF HILLSBOROUGH COUNTY LAND DEVELOPMENT CODE AND ALL COUNTY TECHNICAL STANDARDS.

3. ALL ELEVATION DATA IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NAVD) OF 1988.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH SUBCONTRACTORS AND OTHER PUBLIC OR PRIVATE UTILITIES CONSTRUCTING FACILITIES WITHIN THE PROJECT LIMITS.

5. THE CONTRACTOR SHALL SOLID SOD ALL SLOPES STEEPER THAN 5:1 AND WITHIN COUNTY/FDOT R/W, AND SEED AND MULCH ALL OTHER AREAS DISTURBED BY CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN SOD/SEED AND MULCH UNTIL STABILIZATION HAS OCCURRED.

6. CONTRACTOR SHALL CONTACT THE ENGINEER AND/OR OWNER PRIOR TO ANY CONSTRUCTION ACTIVITY THAT MAY DAMAGE OR OTHERWISE AFFECT TREES.

7. EXISTING UNDERGROUND UTILITY LINES SHOWN ON THE DRAWINGS WERE TAKEN FROM RECORD DRAWINGS AND DOCUMENTS FURNISHED BY OTHERS, AND NOT FIELD VERIFIED. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WHICH MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION, PRIOR TO ACTUAL CONSTRUCTION. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED IF A CONFLICT EXISTS BETWEEN ACTUAL FIELD CONDITIONS AND THESE PLANS. CALL SUNSHINE STATE ONE CALL AT 1-800-432-4770 MIN. 48 HOURS BEFORE DIGGING.

8. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION, INCLUDING TESTING, WITH ENGINEER AND APPROPRIATE CITY OF CLEARWATER INSPECTORS IN ACCORDANCE WITH HILLSBOROUGH COUNTY REQUIREMENTS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS THAT IS NOT PROVIDED BY THE ENGINEER OR OWNER. THESE PERMITS MAY BE ROAD CROSSING, ONSITE PIPING PERMIT, UTILITY, SITE CLEARING, AND ALL PERMITS FROM THE GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE PROJECT SITE.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL FILED AND ACTUAL INFORMATION TO THE ENGINEER FOR THE PREPARATION OF RECORD DRAWINGS. A MARK-UP "IN RED" SET OF PLANS SHALL BE AVAILABLE AT ALL TIME AT THE CONSTRUCTION SITE. FINAL FIELD CONDITIONS SHALL BE SURVEYED BY A LICENSE SURVEYOR. TEN CERTIFIED AS-BUILT SURVEYS SHALL BE FURNISHED TO THE ENGINEER AFTER THE FINAL INSPECTION.

11. ALL PAVEMENT CUT/FILLING SHALL MEET THE FOLLOWING REQUIREMENTS:
   A. COMPACTED TO A DENSITY OF NOT LESS THAN 98% PER ASTM D 1557-70.
   B. DENSITY TEST SHALL BE CONDUCTED EVERY 12" OF COMPACTED DEPTH OR AS DIRECTED BY THE ENGINEER.

12. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED UPON.

13. EROSION / SEDIMENTATION CONTROL

CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN TO THE SATISAFACTION OF THE ENGINEER AND/OR AUTHORITIES.

CALL 48 HOURS BEFORE YOU DIG!

IT'S THE LAW!
1-800-432-4770

PREPARED BY

TAMPA CIVIL DESIGN

PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

OCTOBER 2010

OWNER:
HOPE INTERNATIONAL MINISTRIES INC
11415 HOPE INTERNATIONAL DR,
TAMPA, FL 33625-3963
(813) 961-1214
CONTACT: DR. MIKE HIGGINS

CIVIL ENGINEER:
TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497
CONTACT: JEREMY COUCH, P.E.

SURVEYOR:
SMITH SURVEYORS
1406 WEST LINEBAUGH AVE
TAMPA, FL 33612
CONTACT: JOE HANLON

CONTRACTOR:
THE FECHTEL COMPANY
3036 WEST BEARSS AVENUE
TAMPA, FL 33618
(813) 264-7778
CONTACT: JAY FECHTEL

COTTAGES OF HOPE 10-014

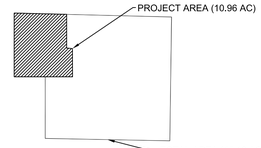
	EXISITNG	PROPOSED	TOTAL
TOTAL AREA	(45.16 AC) 1,967,169 SF		
PROJECT AREA	477,173 SF (10.96AC)		477,173 SF (100%)
BUILDING AREA	7,825 SF	22,680 SF	30,505 SF (6.39%)
PERVIOUS AREA	467,573 SF	0 SF	374,092 SF (78.40%)
PAVEMENT AREA	1,775 SF	35,596 SF	37,371 SF (7.83%)
POND AREA	0 SF	35,205 SF	35,205 SF (7.38%)
ZONING	PD-H		PD-H 89-43
LAND USE	CHILDRENS HOME (NON PROFIT SERVICE)		
DATUM	NAVD 1988		

LEGAL DESCRIPTION

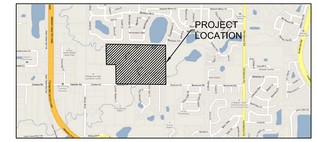
LEGAL DESCRIPTION: (OVERALL PARCEL)
THE EAST ¼ OF THE NORTHWEST ¼ OF THE NORTHWEST ¼, LESS THE SOUTH 25 FEET THEREOF, AND THE NORTH ¼ OF THE WEST ½ OF THE EAST ½ OF THE NORTHWEST ¼ OF THE NORTHWEST ¼ OF SECTION 13, TOWNSHIP 28 SOUTH, RANGE 17 EAST, HILLSBOROUGH COUNTY, FLORIDA.

AND

THE WEST ½ OF THE NORTHEAST ¼ OF THE NORTHWEST ¼ OF SECTION 13, TOWNSHIP 28 SOUTH, RANGE 17 EAST, HILLSBOROUGH COUNTY, FLORIDA; LESS THE SOUTH 25 FEET THEREOF, AND LESS THE NORTH 15 FEET OF THE WEST ½ OF THE EAST ½ OF THE NORTHEAST ¼ OF THE NORTHWEST ¼ OF SECTION 13, TOWNSHIP 28 SOUTH, RANGE 17 EAST, HILLSBOROUGH COUNTY, FLORIDA.



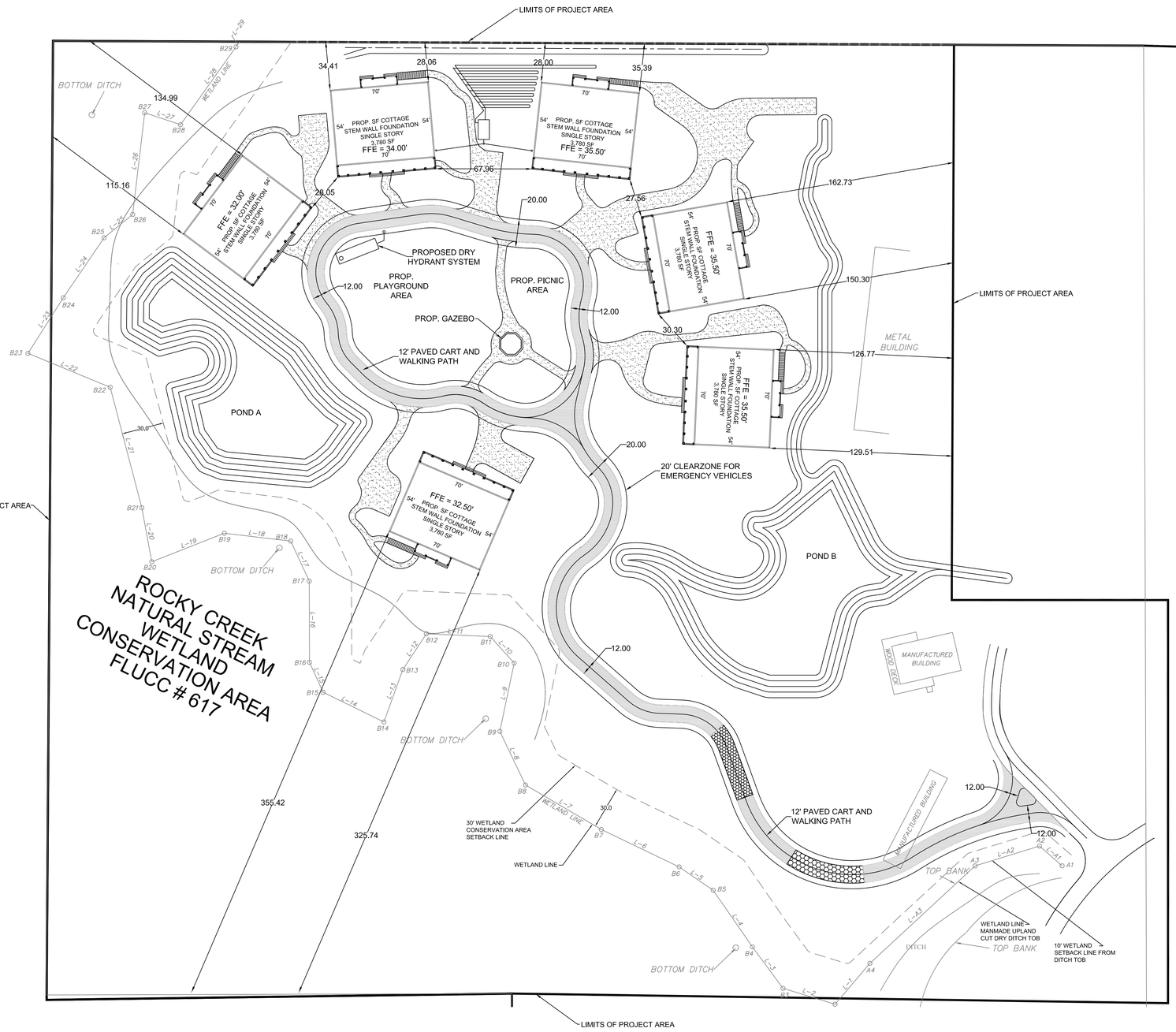
KEYMAP
N.T.S.



LOCATION MAP

GENERAL NOTES

A) SOLID WASTE CONTINUE IN ONSITE DUMPSTER AREA LOCATED OUTSIDE OF THE DEPICTED PROJECT AREA
B) SITE TO BE DEVELOPED WITH SHARED SEPTICS.
C) SITE TO BE DEVELOPED WITH SINGLE WELL, LOCATED OUTSIDE OF THE PROJECT AREA. WATER SYSTEM CONSIDERED AS A TRANSIENT NONCOMMUNITY PUBLIC DRINKING WATER SYSTEM PER HILLSBOROUGH COUNTY HEALTH DEPARTMENT CRITERIA.
D) ALL STRUCTURES HAVE BEEN PLACED TO HAVE THE MINIMUM LAND CONTIGUOUS LAND AREA CONSISTENT WITH THE SPACING REQUIREMENTS PER ZONING CONDITION 5, RZ 89-43
E) MAXIMUM STRUCTURE HEIGHT IS 30'
F) COTTAGES WILL HAVE A FUNCTIONAL ATTIC FOR STORAGE



N

SCALE: 1"= 40'

0' 20' 40' 80'

GRAPHIC SCALE (IN FEET)

TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

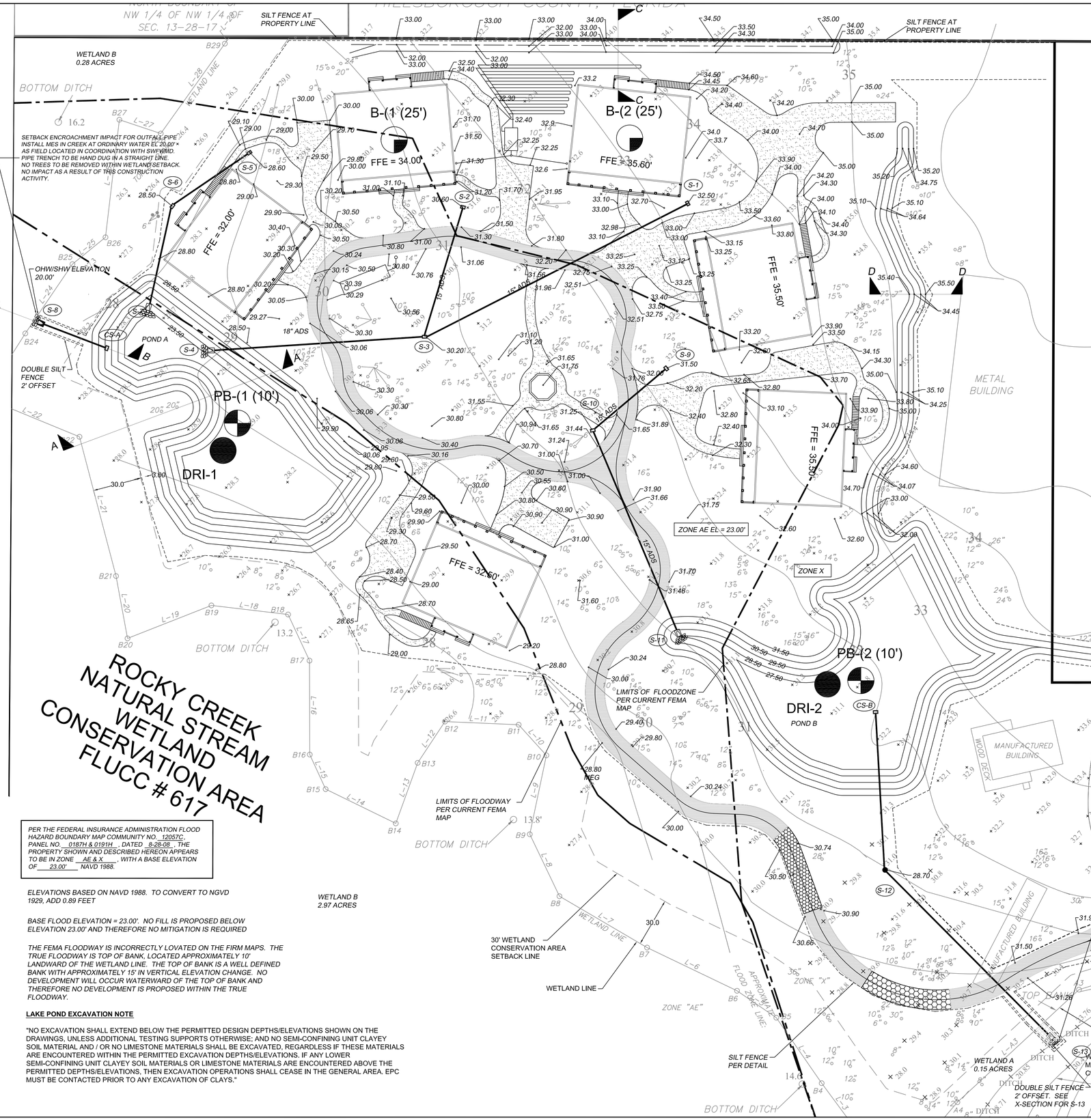
DES: J.C.
DRFT: J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70659

SITE / UTILITY PLAN

SHEET NO:

C-2



ROCKY CREEK NATURAL STREAM WETLAND CONSERVATION AREA FLUCC # 617

PER THE FEDERAL INSURANCE ADMINISTRATION FLOOD HAZARD BOUNDARY MAP COMMUNITY NO. 12057C, PANEL NO. 0187H & 0191H , DATED 8-28-08 , THE PROPERTY SHOWN AND DESCRIBED HEREON APPEARS TO BE IN ZONE AE & X , WITH A BASE ELEVATION OF 23.00' NAVD 1988.

ELEVATIONS BASED ON NAVD 1988. TO CONVERT TO NGVD 1929, ADD 0.89 FEET

BASE FLOOD ELEVATION = 23.00'. NO FILL IS PROPOSED BELOW ELEVATION 23.00' AND THEREFORE NO MITIGATION IS REQUIRED

THE FEMA FLOODWAY IS INCORRECTLY LOVATED ON THE FIRM MAPS. THE TRUE FLOODWAY IS TOP OF BANK, LOCATED APPROXIMATELY 10' LANDWARD OF THE WETLAND LINE. THE TOP OF BANK IS A WELL DEFINED BANK WITH APPROXIMATELY 15' IN VERTICAL ELEVATION CHANGE. NO DEVELOPMENT WILL OCCUR WATERWARD OF THE TOP OF BANK AND THEREFORE NO DEVELOPMENT IS PROPOSED WITHIN THE TRUE FLOODWAY.

LAKE POND EXCAVATION NOTE

"NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE; AND NO SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND / OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA. EPC MUST BE CONTACTED PRIOR TO ANY EXCAVATION OF CLAYS."

N

SCALE: 1"=30'

0' 15' 30' 60'

GRAPHIC SCALE (IN FEET)

CONSTRUCTION SURFACE WATER MANAGEMENT FOR COTTAGES OF HOPE

A. PRIOR TO INITIATING THE CONSTRUCTION ACTIVITIES:

1. THE CONTRACTOR MUST PROVIDE STAKED SILT SCREEN AROUND THE ENTIRE PROPERTY BOUNDARY. THE STAKED SILT SCREEN MUST BE INSTALLED STRICTLY AS PER FDOT STANDARD INDEX NO. 102.

2. THE CONTRACTOR MUST PROVIDE A FLOATING TRUBIDITY BARRIER AROUND THE AREA OF THE OUTFALL CONTROL STRUCTURE ACCORDING TO FDOT STANDARD INDEX NO. 103.

3. THE CONTRACTOR MUST PROVIDE THE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH FDOT STANDARD INDEX 102.

B. DURING CONSTRUCTION:

1. INSTALL THE SEDIMENT BASIN AND TRASH RETAINER TO PREVENT TRANSPORT OFF SITE IN ACCORDANCE WITH FDOT STANDARD INDEX 101.

2. CHECK SILT SCREEN AND TURBIDITY BARRIER DAILY AND AFTER A RAINFALL REINSTALL THE SILT SCREEN AND TURBIDITY BARRIER IF REQUIRED.

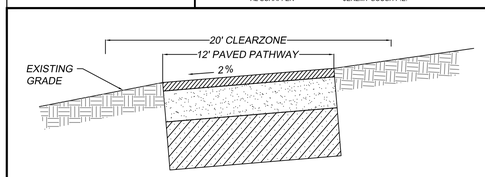
C. CONSTRUCTION CLOSE-OUT:

1. SOD ALL SLOPES AND DISTURBED AREAS IMMEDIATELY.

2. REMOVE SILT SCREEN AFTER ALL THE SLOPES ARE ESTABLISHED.

AGREED BY: AL SCHAFFER

CERTIFIED BY: JEREMY COUCH P.E.



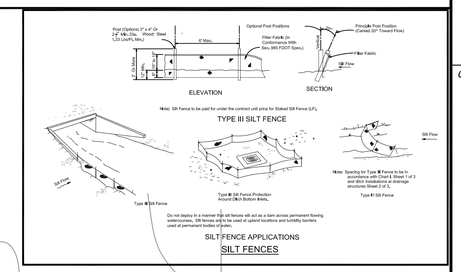
A 1.5" ASPHALTIC CONCRETE TYPE S-1

B 6" CRUSHED CONCRETE BASE COURSE 98 % OF THE MAX. MODIFIED PROCTOR DRY DENSITY (AASHTO T-180)

C 12" COMPACTED SUBGRADE MIN. LBR 40 (98 % PROCTOR COMPACTED)

TYPICAL ASPHALT PATHWAY DETAIL

N.T.S.



TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-25-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

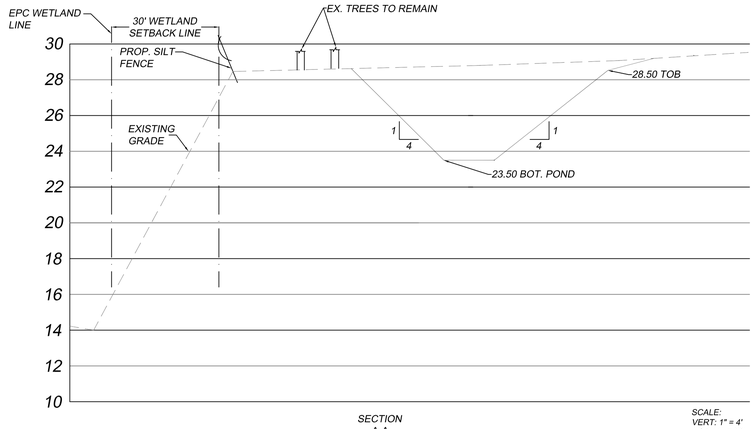
DES. J.C.
DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

GRADING PLAN
NO TREES

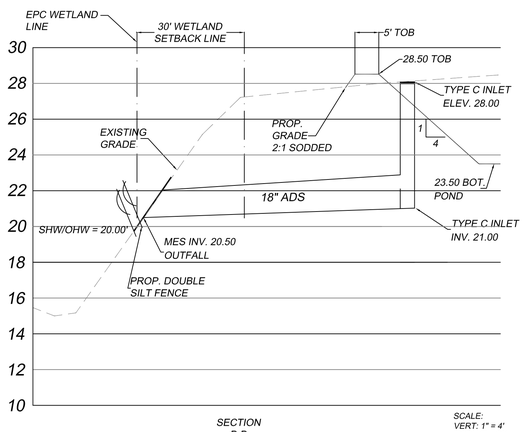
SHEET NO:

C-3



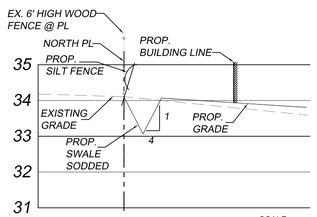
SECTION A-A

SCALE: VERT: 1" = 4' HORI: 1" = 20'



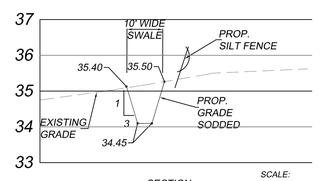
SECTION B-B

SCALE: VERT: 1" = 4' HORI: 1" = 20'



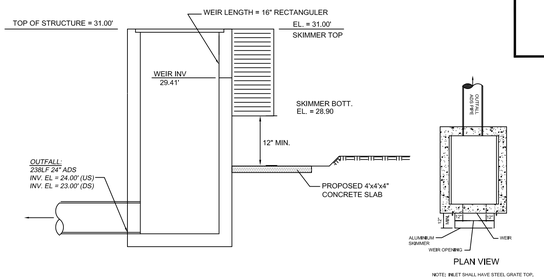
SECTION C-C

SCALE: VERT: 1" = 1' HORI: 1" = 20'



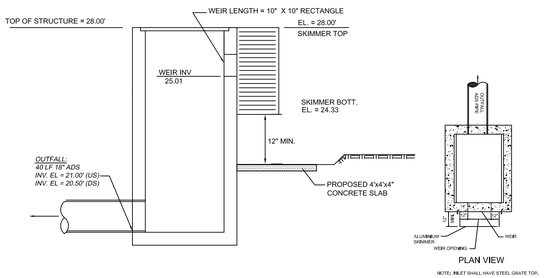
SECTION D-D

SCALE: VERT: 1" = 1' HORI: 1" = 20'



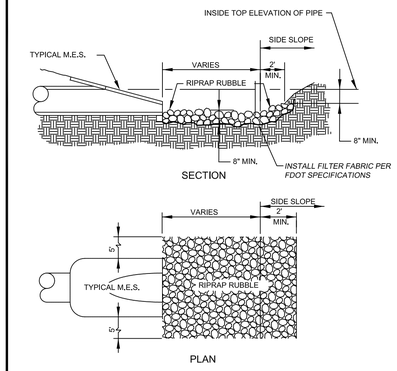
OUTFALL CONTROL STRUCTURE (CS-B)

N.T.S.

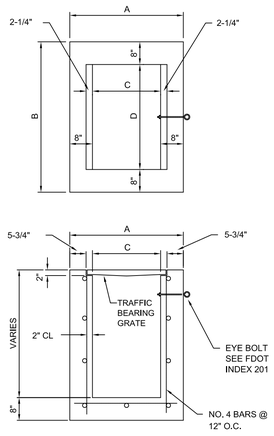


OUTFALL CONTROL STRUCTURE (CS-A)

N.T.S.



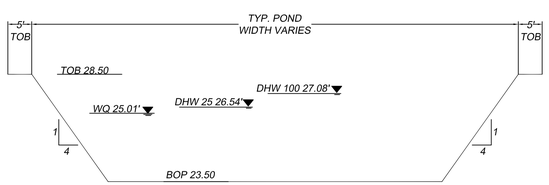
TYP. M.E.S. w/ RIPRAP RUBBLE



DIMENSION TABLE				
INLET	DIMENSIONS			
TYPE	A	B	C	D
"A"	3'-4"	4'-5"	2'-0"	3'-1"
"C"	3'-4"	4'-5"	2'-0"	3'-1"
"D"	5'-5"	4'-5"	4'-1"	3'-1"
"E"	4'-4"	5'-10"	3'-0"	4'-6"
"H"	9'-0"	4'-4"	3'-0"	7'-8"

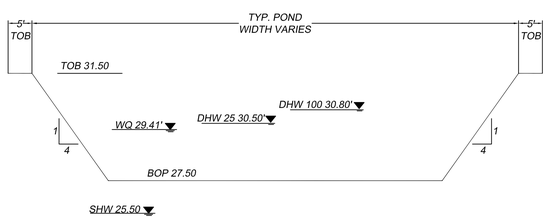
NOTE: NON-TRAFFIC BEARING GRATES WILL BE ALLOWED WHEN LOCATED OUTSIDE VEHICULAR TRAFFIC PATTERN.

NOTE: FOR ADDITIONAL DETAILS, REFER TO FDOT INDEX #232



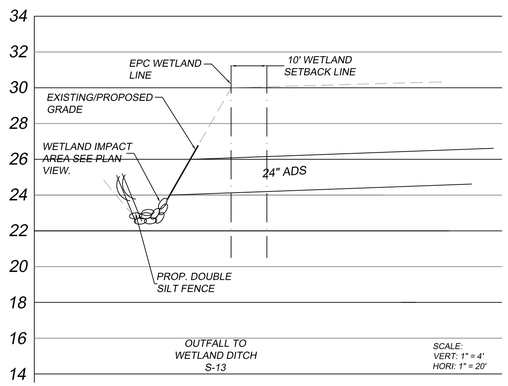
TYPICAL POND A SECTION

N.T.S.



TYPICAL POND B SECTION

N.T.S.



OUTFALL TO WETLAND DITCH S-13

SCALE: VERT: 1" = 4' HORI: 1" = 20'

STRUCTURE SCHEDULE

STRUCTURE				PIPE (FOLLOW STRUCTURE)			
NO.	TYPE	TOP ELEV. (NGVD)	INV. ELEV. (NGVD)	TYPE	SIZE (IN)	LENGTH (FT)	SLOPE (%)
S-1	INLET TYPE C	32.50	26.47	ADS	15"	172	1.0
S-2	INLET TYPE C	30.60	25.55	ADS	15"	80	1.0
S-3	INLET TYPE D	30.20	24.75	ADS	18"	150	0.5
S-4	MITERED END SECTION	--	24.00	--	--	--	--
S-5	INLET TYPE C	28.60	25.19	ADS	15"	56	1.0
S-6	INLET TYPE C	28.50	24.63	ADS	15"	63	1.0
S-7	MITERED END SECTION	--	24.00	--	--	--	--
S-8	MITERED END SECTION	--	17.50	--	--	--	--
S-9	INLET TYPE C	31.50	29.15	ADS	15"	60	0.2
S-10	INLET TYPE C	31.25	29.06	ADS	15"	138	0.2
S-11	MITERED END SECTION	--	28.75	--	--	--	--
S-12	STORM MANHOLE	28.70	23.60	ADS	24"	143	0.4
S-13	MITERED END SECTION	--	23.00	--	--	--	--

TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

DES. J.C.
DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

X-SECTIONS AND DRAINAGE DETAILS

SHEET NO:

C-4

ZONING NOTE:

PER PD PLAN 89-43 NORTHEN PROPERTY LINE TO BE LANDSCAPED WITH EVERGREEN TREES MIN. 15' O.C. AND 10' HIGH MIN. EXISTING TREES TO BE COUNTED WHERE APPLICABLE.

LANDSCAPE LEGEND

*75% OF TREES MUST BE BE SHADE TREES

U LIVE OAK 3" MIN. DBH, 10' HIGH, FLA. GRADE 1. 15' O.C. (7)

LIVE OAK 1" MIN. DBH, 10' HIGH, FLA. GRADE 1. 15' O.C. (19)

*ALL LANDSCAPING MUST BE GRADE 1 OR BETTER
*GROUND COVER SHALL BE BAHIA GRASS

LANDSCAPE REPLACEMENT

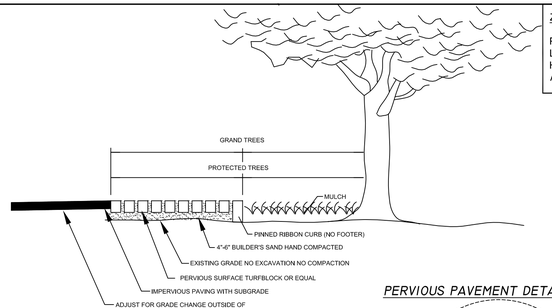
(1) 27" TREE FOR RQUIRED REPLACEMENT

14" DEBIT FROM TREE REMOVED

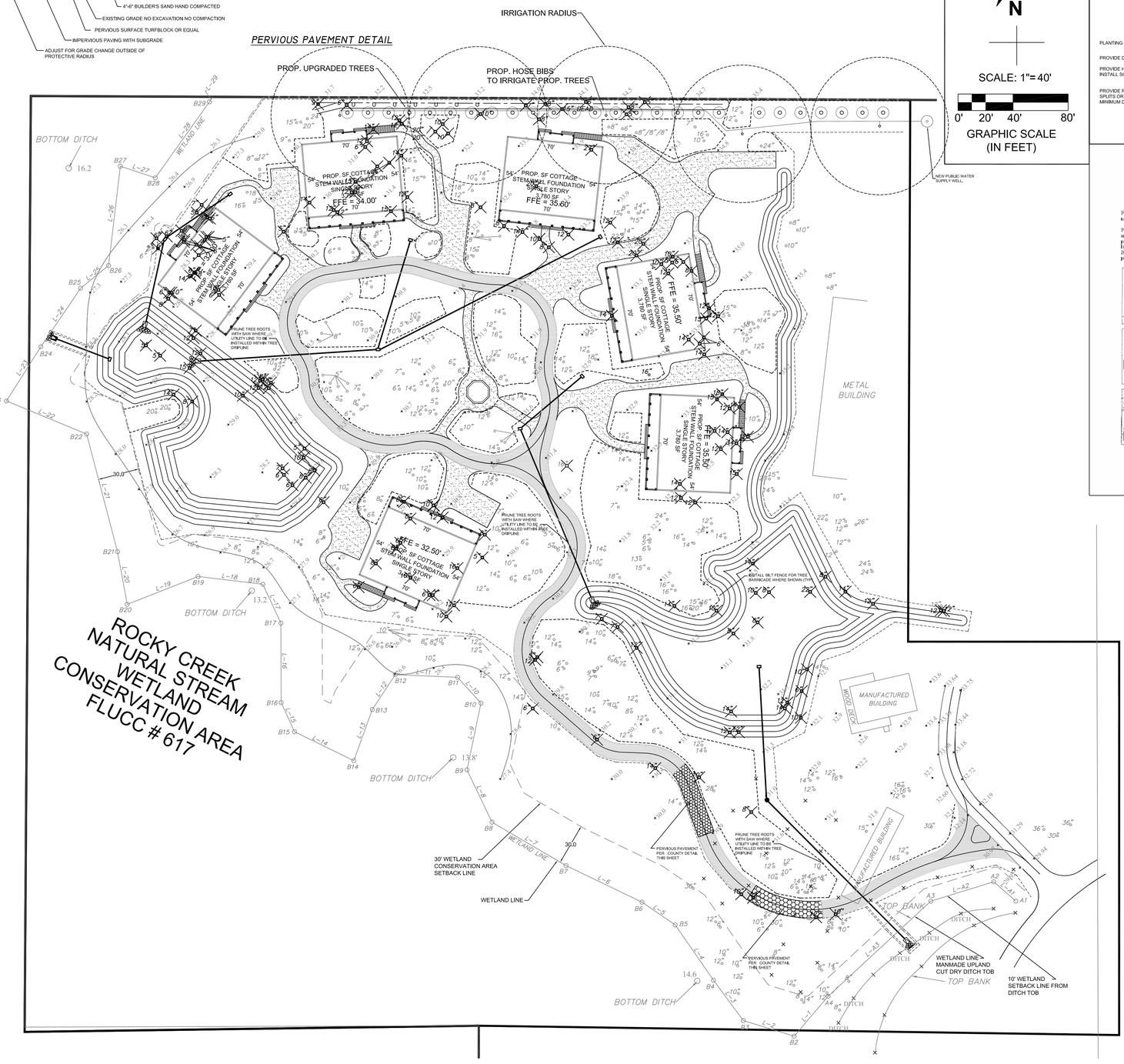
UPGRADE (7) LIVE OAKS FROM 1" TO 3" (NORTH BUFFER)

TOTAL DEBIT = 14"
TOTAL CREDIT = 14"

14" CREDIT - 14" DEBIT = 0" ADDITIOANL INCHES



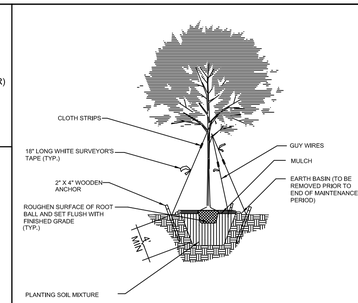
PERVIOUS PAVEMENT DETAIL



SCALE: 1"= 40'

0' 20' 40' 80'

GRAPHIC SCALE (IN FEET)



PROVIDE DOUBLE STRAND 12" GAUGE ANNEALED GALVANIZED STEEL GUYING WIRE.

PROVIDE HOSE CHAFING GUARD OF 2 PLY REINFORCED GREEN RUBBER OR PLASTIC HOSE AND INSTALL SO THAT GUY WIRE DOES NOT CONTACT TRUNK OR BRANCHES

PROVIDE ROUGH SAWN WOOD TREE ANCHORS FREE FROM KNOTS, ROT, CROSS GRAIN, BARK, SPLITS OR OTHER DEFECTS WHICH WOULD IMPAIR THEIR STRENGTH
MINIMUM DIMENSIONS ARE 2" X 4" X 4' LONG

TREE STAKING DETAIL

PROTECTIVE BARRIER REQUIREMENTS
AND
SPECIFICATIONS FOR EXISTING TREES TO REMAIN

PROTECTIVE BARRIERS are used during land alteration and construction activities to protect trees and natural areas to be retained on a site.

PROTECTIVE BARRIERS must be erected around TREE to be retained within an area where land alteration and construction activities will occur as well as along NATURAL AREAS where such areas are adjacent to permitted land alteration or construction activities. A PROTECTIVE BARRIER must remain in place until the land alteration and construction activities are completed or until commencement of grade finishing and sodding. No ground disturbance must occur within the barricaded area. The following represents the County's minimum protective barrier specifications.

FIG. A

FIG. B

FIG. C

1. TREES – To restrict access into the area within the CANOPY DRIPLINE of a tree, a physical structure not less than 3 feet in height, composed of wood or other suitable material, is placed around the tree at the CANOPY DRIPLINE, except where land alteration or construction activities are approved within the CANOPY DRIPLINE.

   The CANOPY DRIPLINE of a tree is the imaginary, vertical line that extends downward from the outermost tips of the tree's branches to the ground. Fig. A

   BARRIER SPECIFICATIONS FOR TREES:

   Four corner upright stakes of no less than 2"x 2" lumber connected by horizontal members of no less than 1"x 4" lumber, or upright stakes spaced at 5' intervals of no less than 2"x 2" lumber connected by silt screen fabric or material of comparable durability. Fig. B

2. NATURAL AREAS – To restrict access into areas where land alteration and construction activities are not authorized a physical structure not less than 3 feet in height is placed along the perimeter of such areas.

   BARRIER SPECIFICATIONS FOR NATURAL AREAS:

   Upright stakes of no less than 2"x 2" lumber spaced no more than 25' apart and connected by twine flagged with plastic surveying tape at regular intervals of 5 1/0'. Fig. C. Other methods of demarcation will be considered depending upon the characteristics of the site.

   WHY A BARRIER

   1. To protect all above ground portions of trees and other significant vegetation from mechanical damage.
   2. To protect root systems from compaction.
   3. To provide awareness of protected areas to equipment operators.

LANDSCAPE NOTES

1. ALL LANDSCAPE ACTIVITY SHALL MEET THE REQUIREMENT OF APPLICABLE HILLSBOROUGH COUNTY LANDSCAPE ORDINANCE OR CODE, LATEST EDITION

2. LANDSCAPE AREAS SHALL HAVE 100% IRRIGATION COVERAGE TO LANDSCAPE MATERIAL BY PERMANENT UNDERGROUND PIPING SYSTEM.

3. ALL PLANT MATERIAL SAHLL BE FLORIDA GRADE #1 AS PER "GRADES & STANDARDS FOR NURSERY PLANTS" AND SHALL BE WARRANTED FOR A MINIMUM OF 90 DAYS BY THE LANDSCAPE CONTRACTOR.

4. ALL TRIMMING UNDERTAKEN ON A TREET PROTECTED BY THE PROVISIONS OF THE LDC SHALL BE PRUNED IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.

5. DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, WITHIN THE DRIP LINE OF A TREE REMAINING ON SITE, UNLESS OTHERWISE APPROVED BY THE ADMINISTRATOR IT SHALL BE UNLAWFUL TO REMOVE VEGETATION, **EXCEPT BY HAND**, BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENT, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE.

6. TOPSOIL USED FOR PLANTING SHALL BE A MIXTURE OF THREE PARTS TO ONE PART PEAT. LANDSCAPED AREAS TO RECEIVE AN SIX-INCH LAYER OF COMPACTED TOPSOIL.

7. PROTECTIVE BARRIERS MUST BE INSTALLED AROUND TREES TO BE RETAINED IN AN AREA WHERE THE LAND ALTERATION AND CONSTRUCTION ACTIVITIES WILL OCCUR AS WELL AS ALONG NATURAL AREA WHERE SUCH AREA ADJACENT TO PERMITTED LAND ALTERATION OR CONSTRUCTION ACTIVITIES. A PROTECTIVE BARRIER MUST REMAIN IN PLACE UNTIL THE LAND ALTERATION OR CONSTRUCTION ARE COMPLETED OR UNTIL COMMENCEMENT OF GRADE FINISHING AND SODDING. NO GROUND DISTURBANCE IS ALLOWED WITHIN THE BARRICADED AREA.

8. ALL SOD ON SITE IS TO BE BAHIA GRASS.

9. SOD SHALL BE INSTALLED IN ALL LANDSCAPE ISLANDS, BUFFERS AND 2' STRIP ADJACENT NEW ASPHALT PAVEMENT NOT ABUTING LANDSCAPE AREA.

10. IRRIGATION SYSTEMS MUST UTILIZE LOW VOLUME DESIGN SUCH AS LOW TRAJECTORY HEADS OR SOAKER HOSED TO PROVIDE DIRECT APPLICATION AND LOW EVAPORATION. SYSTEMS THAT OVER SPRAY AREAS THAT DO NOT REQUIRE IRRIGATION, SUCH AS PAVED AREAS WILL NOT BE ACCEPTABLE. HIGH IRRIGATION NEED AREAS MUST NOT OVER SPRAY LOW NEED AREAS.

11. HIGH WATER DEMAND LANDSCAPE AREAS SUCH AS TURF MUST BE SERVED BY A SEPARATE IRRIGATION ZONE THAN LOW WATER NEED AREAS, SUCH AS PLANTER BEDS, OR MULCHED AREAS WITH TREES. IN NO CASE, SHALL ANY PLANTED VEGETATION AREA BE MORE THAN 50' FROM A WATER SUPPLY HOSE BIBB.

12. IRRIGATION SYSTEM MUST BE OPERATED BY AN IRRIGATION CONTROLLER CAPABLE OF DIFFERENTIATING BETWEEN THE SCHEDULES OF HIGH AND LOW WATER DEMAND AREAS. CONTROLLERS MUST HAVE MULTIPLE CYCLES CYCLES START CAPACITY AND A FLEXIBLE CALENDER PROGRAM ABLE TO BE SET TO COMPLY WITH LOCAL OR WATER MANAGEMENT DISTRIC IMPOSED RESTRICTIONS.

13. THE SYSTEM MUST BE EQUIPPED WITH A RAIN SENSOR DEVICE OR SWITCH WHICH WILL OVERRIDE THE IRRIGATION CYCLE OF THE SPRINKLER SYSTEM WHEN ADEQUATE RAINFALL HAS OCCURRED. GROUND MOISTURE SENSING DEVICES ARE ENCOURAGED WHERE APPROPRIATED.

14. THE SOURCE OF IRRIGATION WATER FOR LANDSCAPING WILL BE THE ONSITE WELL.

15. IN ORDER TO COMPLY WITH SECTION 4.01.05.A OF HILLSBOROUGH COUNTY LAND DEVELOPMENT CODE TO MINIMIZE SOIL EROSION, PROPOSED LAND ALTERATION ACTIVITES SHALL NOT UNNCESSARILY REMOVE EXISTING VEGETATION AND ALTER EXISTING TOPOGRAPHY. ADEQUATE PROTECTION MEASURES (I.E. HAY BALES, BAFFLES, SODDING AND SANDBAGGING) SHALL BE PROVIDED, AS NECESSARY, TO MINIMIZE EROSION AND DOWNSTREAM SEDIMENTATION CAUSED BY SURFACE WATER RUN-OFF ON EXPOSED LAND SURFACES.

16. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATER THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, PLUGGING, SPRIGGIN OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES AREA GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.

17. FOR COMMERCIAL SITE DEVELOPMENT PROJECT, NO MORE THAN 50 % OF THE LANDSCAPED AREA MAY BE PLANTED WITH SHALLOW-ROOTED (I.E. ST. AUGUSTINE) TURF GRASS VARIETIES. THESE TURF GRASS VARIETIES SHALL BE CONSOLIDATED IN AND LIMITED TO AREAS THAT ARE PROVIDED WITH CENTRAL AUTOMATIC IRRIGATION SYSTEMS.

18. INSTALL ALL IRRIGATION LINES/EQUIPMENT BY HAND WITHIN THE DRIPLINE OF ANY EXISTING TREES ON THE PROJECT SITE. NO CUTTING OF ROOTS SHALL BE ALLOWED.

19. INSTALL TREE BARRICADES TO THE FULLEST EXTENT OF THE DRIP LINE OF ALL TREES AS POSSIBLE AND/OR TO THE MAXIMUM LIMIT OF IMPROVEMENT(S) AS POSSIBLE. DO NOT INSTALL TREES BARRICADES (SPECIFFICALLY SILT FENCING MATERIAL) BY TRENCHING WITHIN THE DRIPLINE OF EXISTING TREES.

20. SHRUBERRY USED FOR SCREENING SHALL BE A MINIMUM HEIGHT OF 24" AND SHALL BE SPACED 3' O.C.

21. ALL LANDSCAPING MATERIAL MUST BE FLORIDA GRADE #1 OR BETTER QUALITY.

22. THE CONSTRUCTION OF ALL ABOVE GROUND UTILITY APPURTENANCES VISIBLE FROM PUBLIC RIGHT-OF-WAY SUCH AS PEDESTALS, UTILITY METERS, TRANSFORMERS, BACK-FLOW PREVENTION DEVICES, ETC FOR NEW DEVELOPMENT OR REDEVELOPMENT ACTIVITIES SHALL CONFORM TO SCREENING REQUIREMENTS AS OUTLINED IN SECTION 6.06.06.C.10 OF THE LAND DEVE;OPMENT CODE. PLANT LOCATION MUST BE CONSIDERATE OF REQUIRED SPATIAL SEPARATIONS FROM A FIRE FLOW PROTECTION APPLIANCE IN ACCORDANCE TO THE UNIFORM FIRE CODE

ADDITIONAL NOTES

J. ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE IN ACCORDAN WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS. THIS INFORMATION MUST BE CLEARLY NOTED ON THE **(SITE DEVELOPMENT PLANS/SUBDIVISION CONSTRUCTION PLANS)**.

Q. DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY. INFORMATION ADDRESSING THIS ISSUE MUST BE INDICATED ON THE **(SITE DEVELOPMENT PLANS/SUBDIVISION CONSTRUCTION PLANS)**.

W. IN ORDER TO COMPLY WITH SECTION 4.01.05.A OF THE HILLSBOROUGH COUNTY LAND DEVELOPMENT CODE TO MINIMIZE SOIL EROSION PROPOSED LAND ALTERATION ACTIVITIES SHALL NOT UNNECESSARILY REMOVE EXISTING VEGETATION AND ALTER EXISTING TOPOGRAPHY. ADEQUATE PROTECTION MEASURES (I.E., HAY BALES, BAFFLES, SODDING AND SANDBAGGING) SHALL BE PROVIDED, AS NECESSARY, TO MINIMIZE EROSION AND DOWNSTREAM SEDIMENTATION CAUSED BY SURFACE WATER RUN-OFF ON EXPOSED LAND SURFACES. INFORMATION ADDRESSING THIS ISSUE MUST BE SHOWN ON THE **(SITE DEVELOPMENT PLANS/SUBDIVISION CONSTRUCTION PLANS)**.

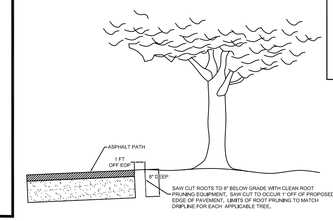
X. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, PLUGGING, SPRIGGING OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES ARE GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.

FOR COMMERCIAL SITE DEVELOPMENT PROJECTS, NO MORE THAN 50% OF THE LANDSCAPED AREA MAY BE PLANTED WITH SHALLOW-ROOTED TURF GRASS VARIETIES. THESE TURF GRASS VARIETIES SHALL BE CONSOLIDATED IN AND LIMITED TO AREAS THAT ARE PROVIDED WITH CENTRAL AUTOMATIC IRRIGATION SYSTEMS. A METHOD OF STABILIZATION MUST BE SHOWN ON THE **(SITE DEVELOPMENT PLANS/SUBDIVISION CONSTRUCTION PLANS)**.

PP. PRUNING OF A GRAND OAK, WITH THE EXCEPTION OF MINOR PRUNING, IS PROHIBITED UNLESS CONDUCTED IN ACCORDANCE WITH THE ANSI-A-300 PRUNING STANDARDS, AND PERFORMED BY AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) OR A REGISTERED CONSULTING ARBORIST WITH THE AMERICAN SOCIETY OF CONSULTING ARBORISTS (ASCA). MINOR PRUNING IS THE PRUNING OF A TREE BY THE REMOVAL OF BRANCHES NO GREATER THAN THREE INCHES IN DIAMETER AT THE POINT OF CONNECTION TO A SUPPORTING BRANCH AND SHALL BE IN ACCORDANCE WITH THE ANSI A-300 PRUNING STANDARDS. A NOTARIZED AFFIDAVIT (ATTACHED) AFFIRMING AN ISA CERTIFIED ARBORIST OR AN ASCA REGISTERED CONSULTING ARBORIST WILL CONDUCT OR PROVIDE ONSITE SUPERVISION OF THE PRUNING SHALL BE SUBMITTED TO THE COUNTY PRIOR TO THE PRUNING OF A GRAND OAK. AN ISA CERTIFIED ARBORIST OR AN ASCA REGISTERED CONSULTING ARBORIST CONTRACTED BY A PROPERTY OWNER TO PRUNE A GRAND OAK SHALL ASSUME FULL RESPONSIBILITY FOR ALL PRUNING ACTIVITIES DETERMINED IN NONCOMPLIANCE WITH STANDARDS SPECIFIED WITHIN THE LAND DEVELOPMENT CODE.

ONLY APPLICABLE IF GRAND OAKS ARE ON THE PROPERTY.

U. THE CONSTRUCTION OF ALL ABOVE GROUND UTILITY APPURTENANCES VISIBLE FROM THE PUBLIC RIGHT-OF-WAY SUCH AS PEDESTALS, UTILITY METERS, TRANSFORMERS, BACKFLOW PREVENTION DEVICES, ETC FOR NEW DEVELOPMENT OR REDEVELOPMENT ACTIVITIES SHALL CONFORM TO SCREENING REQUIREMENTS AS OUTLINED IN SECTION 6.06.06.C.10 OF THE LAND DEVELOPMENT CODE. PLANT LOCATION MUST BE CONSIDERATE OF REQUIRED SPATIAL SEPARATIONS FROM A FIRE FLOW PROTECTION APPLIANCE IN ACCORDANCE TO THE UNIFORM FIRE CODE.



TYPICAL ROOT PRUNING DETAIL

TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

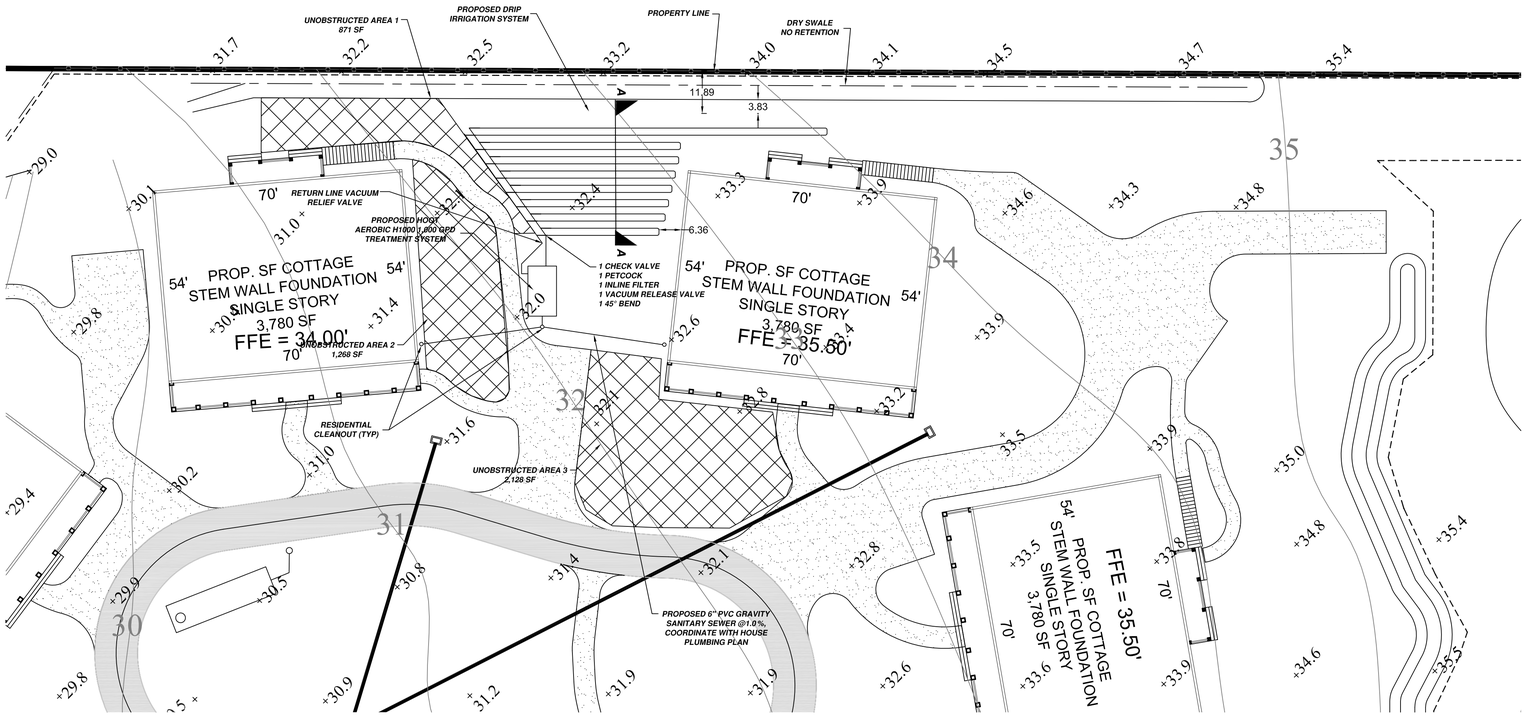
DES. J.C.
DRFT. J.O.

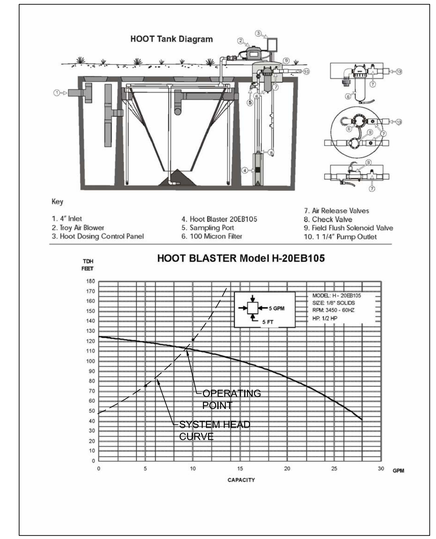
JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

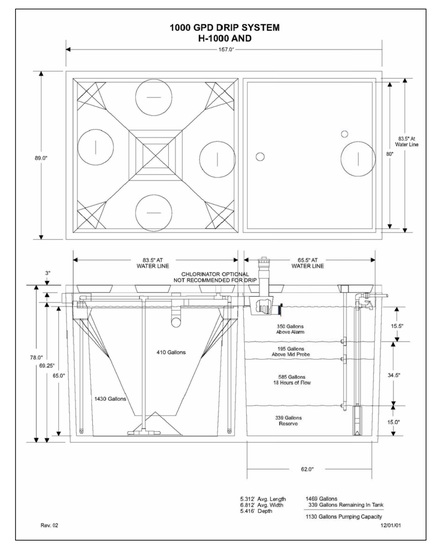
LANDSCAPE PLAN

SHEET NO:

C-5







SCALE: 1"= 20'

0' 10' 20' 40'

GRAPHIC SCALE (IN FEET)

TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/29S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

DES: J.C.
DRFT: J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

AEROBIC SEPTIC PLAN

SHEET NO:

C-6

GENERAL SPECIFICATIONS/NOTES

1. If the contractor, in the course of the work, finds any discrepancy between the drawings and the physical conditions of the locality, or any error or omissions in the drawings or in the layout as given by points and instructions, or discovers unforeseen underground or aboveground conditions or any other unexpected conditions requiring additional work by the contractor, it shall be his duty to immediately inform the engineer, in writing, and the engineer shall promptly check the accuracy of the information. Any work done after such discovery, until any necessary changes are authorized, will be done at the contractor's risk.

2. If any part of the contractor's work depends, for proper execution or results, upon the work of any other contractor, the contractor shall inspect and measure work already in place and shall at once report to the engineer any discrepancies between the executed work and the drawings.

3. The engineer or his authorized representative shall have free access to the work of the contractor at any time for purpose of inspection. The contractor shall furnish the facilities to determine, as best as can reasonably be done, the nature and quality of the work performed. Such assistance of the contractor shall, if necessary, include the uncovering, testing or removal of portions of finished work.

4. Debris Removal: All debris shall be removed from the area and legally disposed. Debris may be burned upon obtaining proper burning permit but any unburned remains are to be disposed of as directed by the owner or his representatives.

5. The contractor shall be responsible for protecting all buildings, structures, and utilities that are underground, above ground, or on the surface against construction operations that may be hazardous to said facilities and shall hold and save the owner harmless against all claims of damage.

6. The contractor shall, by repair or replacement, return to equal or better condition, all pavement, sidewalk, lawns, utilities, and other items damaged by this construction activity.

7. The contractor shall be responsible for obtaining all required tests and shall submit reports by an independent testing laboratory approved by the engineer. Should any tests fail to meet specification as shown herein, the contractor shall at his expense correct all deficient work and submit laboratory test results showing compliance with these specifications.

8. The contractor shall give the engineer 48 hours notice prior to requesting required inspections and shall supply all equipment necessary to properly test and inspect the completed work.

9. As-builts: The contractor shall complete "as-built" information relative to pipe lengths, materials and any deviation from plans and provide a copy of such to the owner and engineer for final acceptance of the contractor's work.

10. Elevations: All elevations refer to NAVD 1988

AEROBIC SYSTEM NOTES:

1. TIME DOSING SHOULD OCCUR OVER A 24-HOUR PERIOD.
2. SPACING BETWEEN EMMITERS SHALL NOT EXCEED 2FT.
3. EMITTER LINES REQUIRE A 2FT MINIMUM SETBACK FROM THE BUILDING AND PROPERTY LINES.
4. 18" OF SEPERATION IS REQUIRED BETWEEN THE EMITTER LINES AND THE SHOULDER OF THE FILL.
5. ALL DRIP LINES REQUIRE A MINIMUM OF 6" COVER AND A MAXIMUM OF 12".
6. LOCATION OF THE PROPOSED HOOT TANK MUST BE 5 FT MINIMUM OFF BUILDING AND PROPERTY LINE.
7. ALL AEROBIC SYSTEMS SHALL BE MAINTAINED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH CHAPTER 64E-6, F.A.C.
8. CHECK VALVE, INLINE FILTER, PETCOCK AND VACUUM BREAKING DEVICE TO BE INSTALLED AS PER MANUFACTURER.
9. DOSING PUMP DISCHARGE LINE SHALL HAVE A PETCOCK FOR SAMPLING PURPOSES.
10. POTABLE WATER LINES SHALL BE SLEEVED WHENEVER LESS THAN 10' FROM SEPTIC SYSTEM
11. SYSTEM AND ALL COMPONENTS SHALL ONLY BE THOSE APPROVED IN ACCORDANCE WITH F.A.C. 64E.-6.

HEAD LOSS CALCULATIONS

STATIC HEAD:

DRAIN FIELD PRESSURE REQ'D: 46.2' (20 PSI)
DEPTH OF PUMP TO FIELD: 5.5'
ELEVATION CHANGE IN FIELD: 0.50'

TOTAL STATIC HEAD = 46.2 + 5.5+ 0.50 = **52.20'**

DYNAMIC HEAD:

GPM	HEADLOSS PER 100 LF OF TUBING	DYNAMIC HEADLOSS	TOTAL HEADLOSS
2	1.90	3.95	56.36
4	7.00	14.56	66.97
6	14.70	30.72	83.13
8	25.00	52.25	104.66
10	33.00	68.64	121.05
12	53.00	110.24	162.65
15	80.00	166.40	218.61
18	103.20	214.66	267.07
20	136.00	282.88	335.29

AEROBIC SYSTEM DESIGN

DESIGN FLOW: (2) STRUCTURES X 3,780 SF HEATED EA = 1,000 GPD PER CHAPTER 64E-6

DRAIN FIELD PERMIT REQUIRES = $\frac{1,000 \times 0.75}{0.80}$ = 938

DRAIN FIELD REQUIRED = 938 SF

PROPOSED

860 LF DRIP TUBING (430 EMMITTERS X 4SF/EMMITER) = 1,720 SF

1,720 SF > 938 SF OK

DESIGN CRITERIA

EMITTER DISCHARGE = 0.92 GAL/HOUR

DOSE PERIOD = 15 MIN/DOSE OR 1 DOSE/HR

430 EMMITERS PROVIDED

CALCULATIONS

DOSES PER DAY:

1 DOSE/HR x 24 HR = 24 DOSES/DAY

EMITTER DOSE CAPACITY:

0.92 GAL/HR x 430 EMITTERS x 15 MIN/DOSE x 1 HR/ 60MIN = 98.90 GAL/DOSE

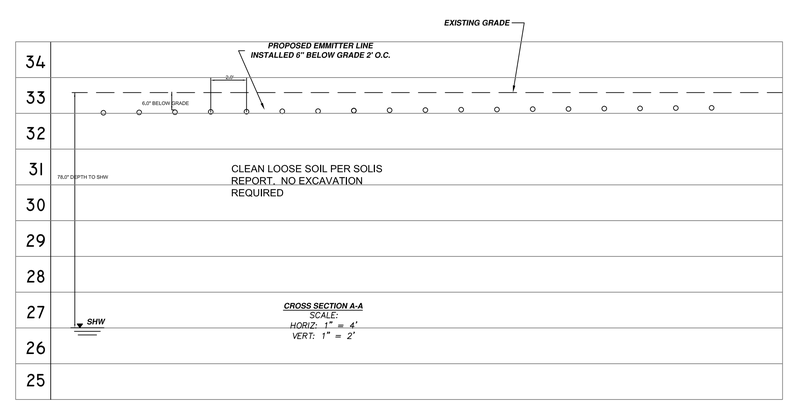
98.90 GAL/DOSE x 24 DOSE/DAY = 2,374 GPD > 1000 GPD OK

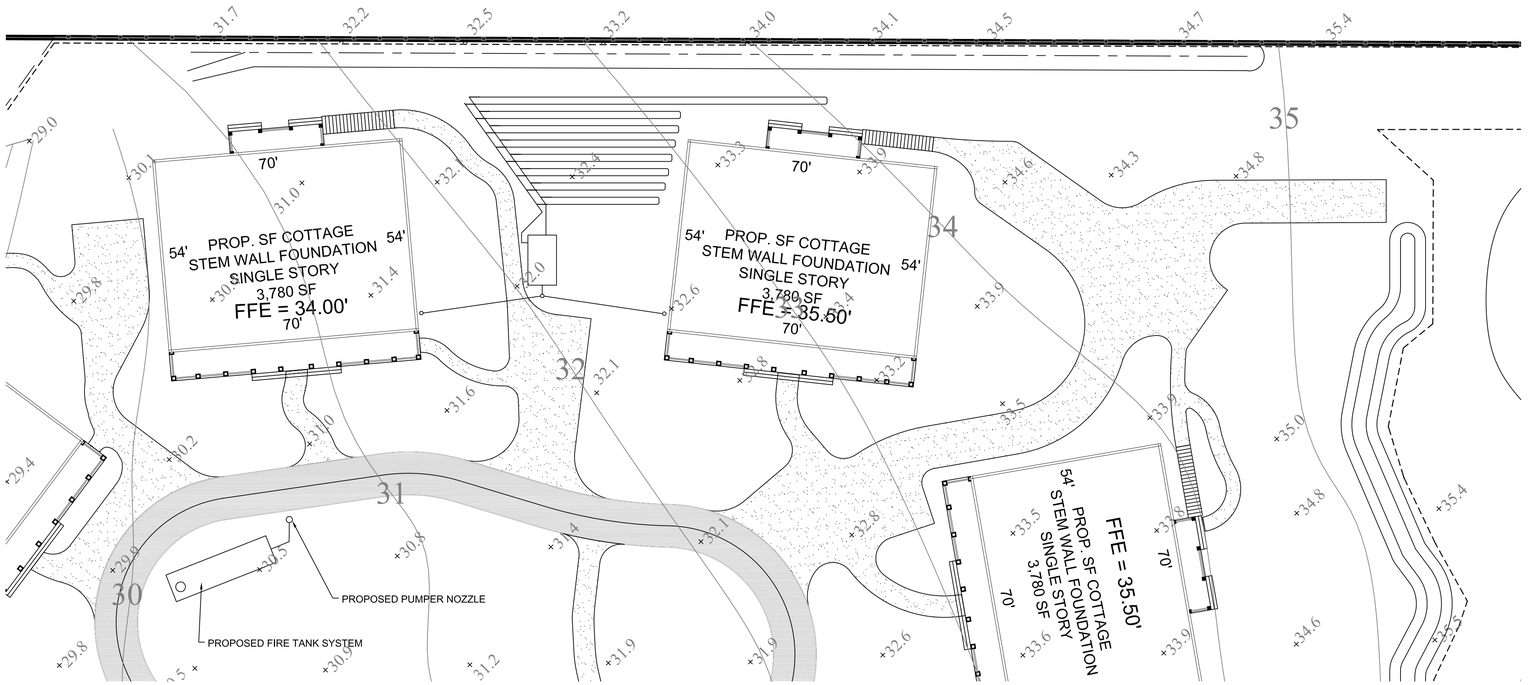
RECIRCULATION RATE:

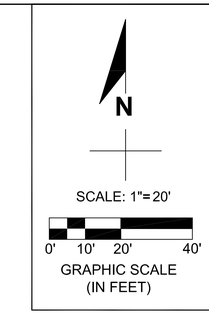
DESIGN FLOW = 9 GPM (SEE OPERATING POINT ABOVE)

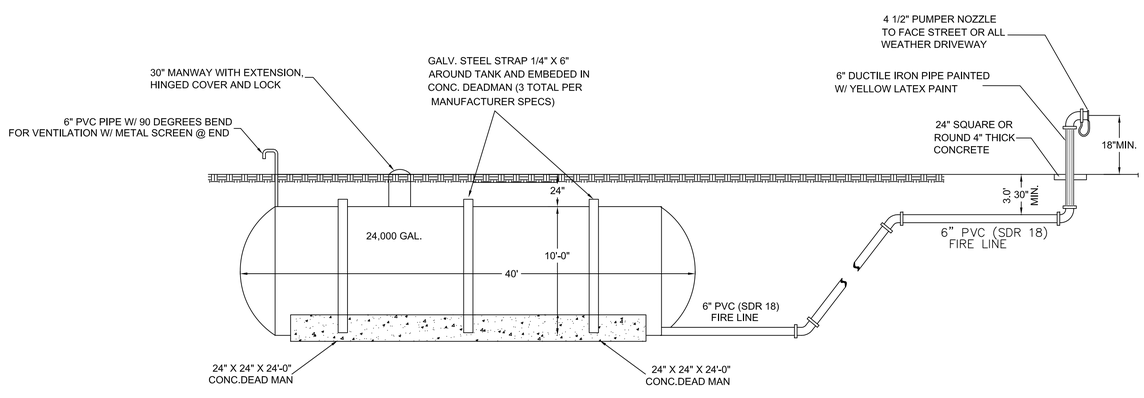
TOTAL EMITTER FLOW = (0.92 GPH / 60) x 430 EMITTERS = 6.59 GPM

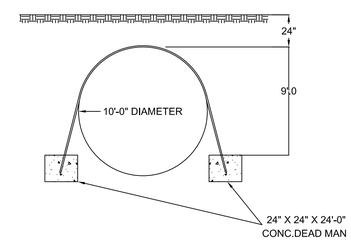
RECIRCULATION RATE = 9 GPM - 6.59 GPM = 2.41 GPM











SECTION THRU TANKS

HOPE CHILDRENS HOME FIRE VAULT CALCULATIONS:

VOLUME REQUIREMENTS:

PROPOSED SINGLE BUILDING

VStot = 69,000 CF
OHC = 7 per NFPA 1142 STANDARDS, SECTION 5.2.4.2 (DWELLING)
CC = 1.5 per NFPA 1142 STANDARDS, TABLE 6.2.1 (TYPE V)

WSmin = (VStot)(CC)(1.5)/(CC)

WSrequired = (69,000)(1.5)(1.5)/ 7 = 22,179 GAL. REQUIRED

PROPOSED STORAGE TANK

(1) 24,000 GAL OR (2) 12,000 GAL

TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

DES. J.C.
DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

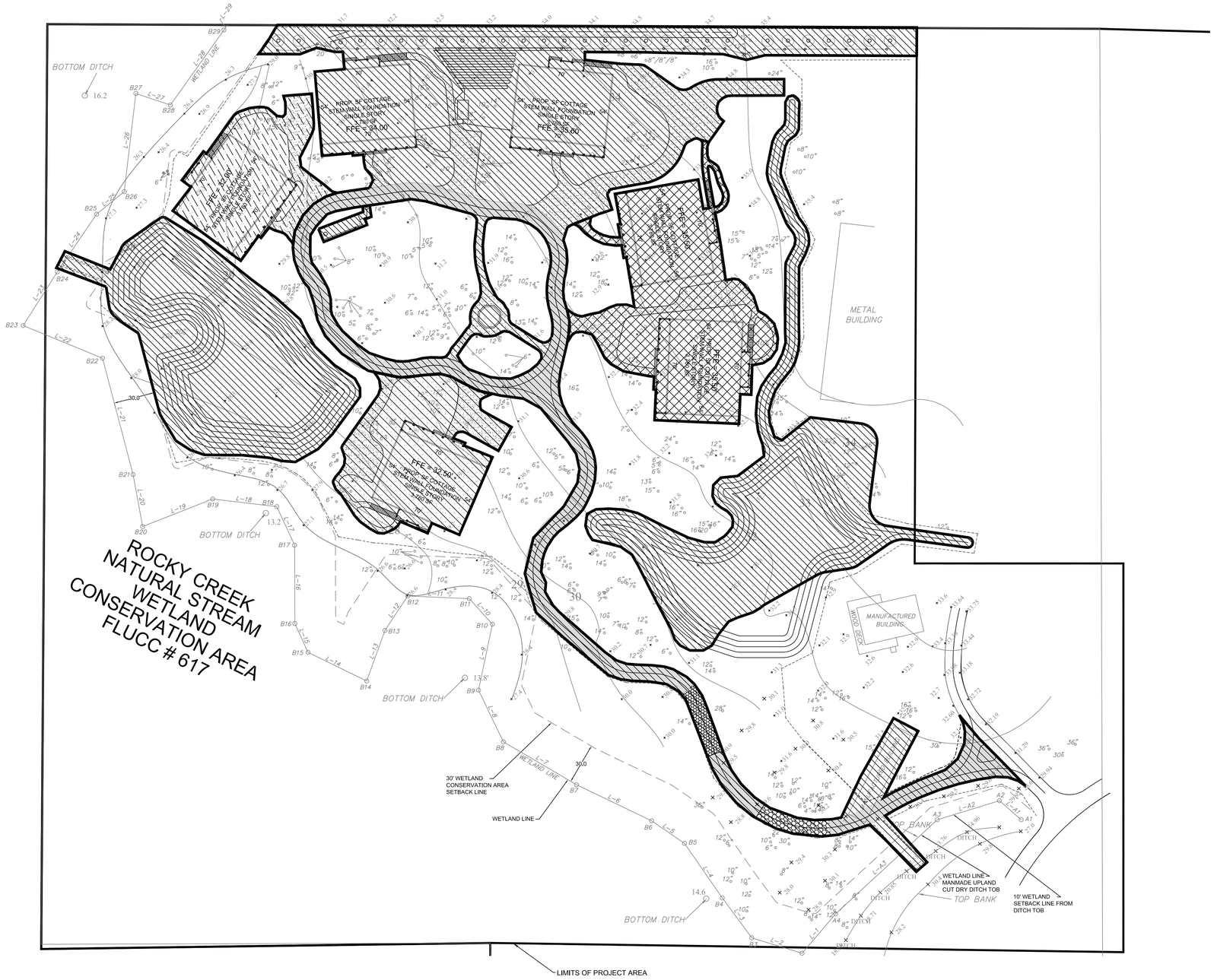
FIRE TANK PLAN

SHEET NO:

C-7

NOTE:

1) 12' ASPHALT PATHWAY TO BE CONSTRUCTED IN PHASE 1
2) ALL TREES SCHEDULED FOR REMOVAL FOR ALL PHASES MAY BE REMOVED IN PHASE 1 IF DECIDED BY THE OWNER
3) ALL PIPING TO BE INSTALLED IN PHASE 1
4) ALL RETENTION PONDS TO BE CONSTRUCTED IN PHASE 1
5) OWNER RESERVES RIGHT TO CONSTRUCT BUILDINGS IN WHATEVER ORDER THEY DESIRE
6) ALL REQUIRED LANDSCAPING AND TREE REPLACEMENT TO OCCUR IN PHASE 1
7) ALL PHASES AFTER PHASE 1 (2-4) WILL REQUIRE PERMIT MODIFICATIONS THROUGH SWFWMD PRIOR TO CONSTRUCTION.



N

SCALE: 1"= 40'

0' 20' 40' 80'

GRAPHIC SCALE (IN FEET)

LEGEND

CURRENT PHASE 1	
FUTURE PHASE 2	
FUTURE PHASE 3	
FUTURE PHASE 4	

TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

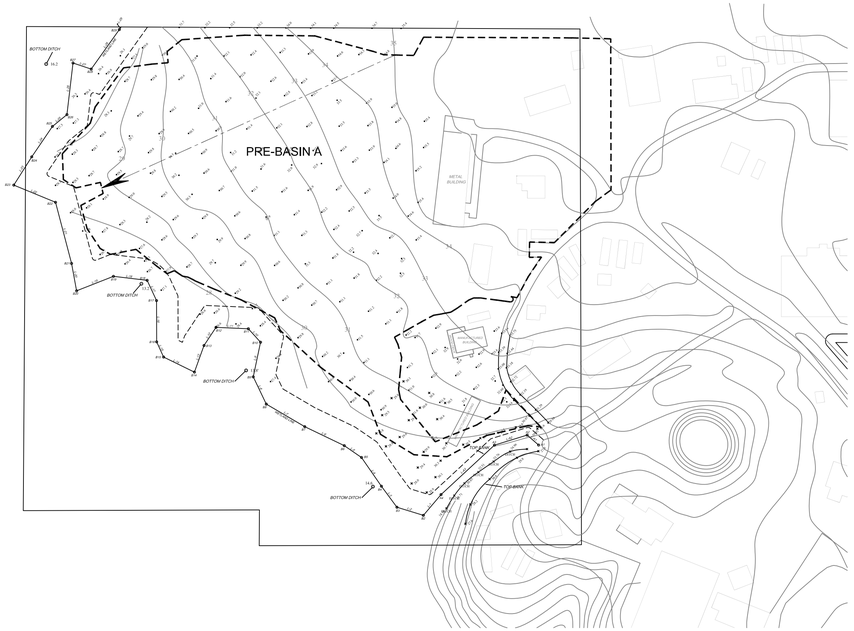
DES. J.C.
DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

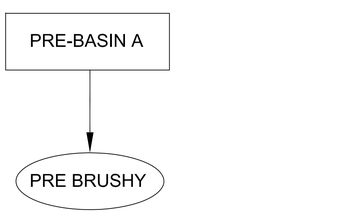
PHASING PLAN

SHEET NO:

C-8



PRE-BASIN A
AREA = 6.12 AC
CN = 66.78
TC = 33.18 MIN



N

SCALE: 1"= 100'

0' 50' 100' 200'

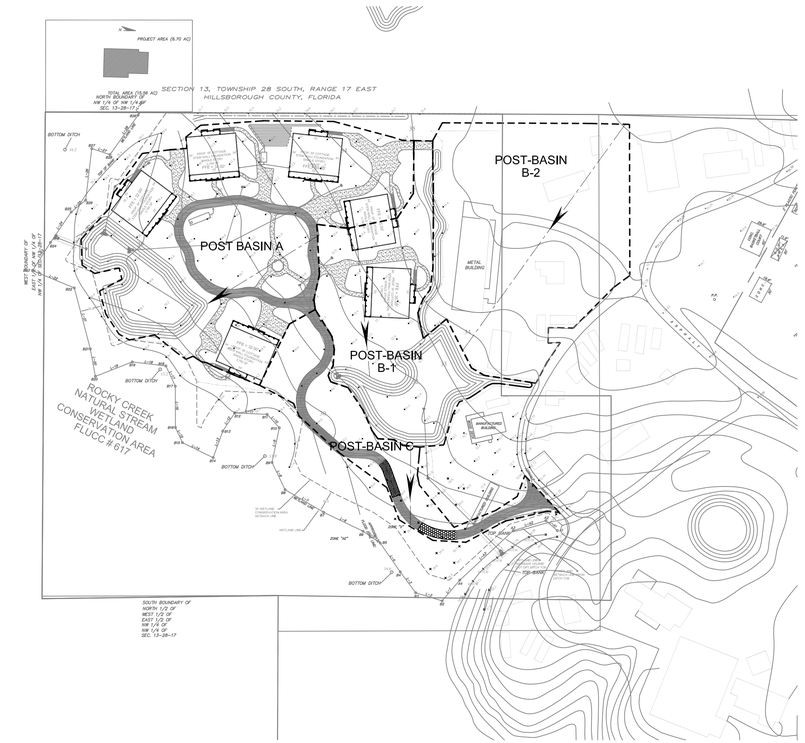
GRAPHIC SCALE
(IN FEET)

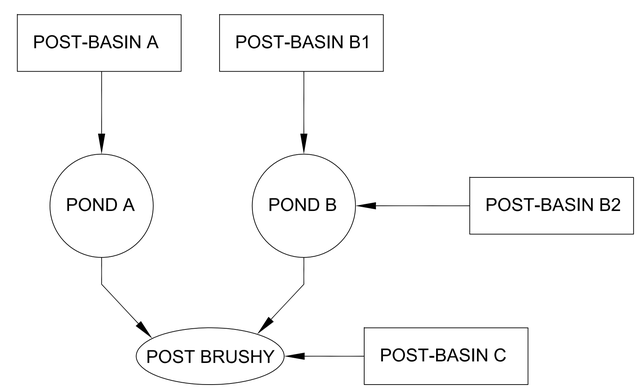
POST-BASIN A
AREA = 2.43 AC
CN = 83.58
TC = 24.25 MIN

POST-BASIN B1
AREA = 1.21 AC
CN = 85.41
TC = 21.62 MIN

POST-BASIN B2
AREA = 1.94 AC
CN = 70.62
TC = 30.74 MIN

POST-BASIN C
AREA = 0.65 AC
CN = 73.80
TC = 29.20 MIN





TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10
REVISED PER SWFWMD	10-19-2010

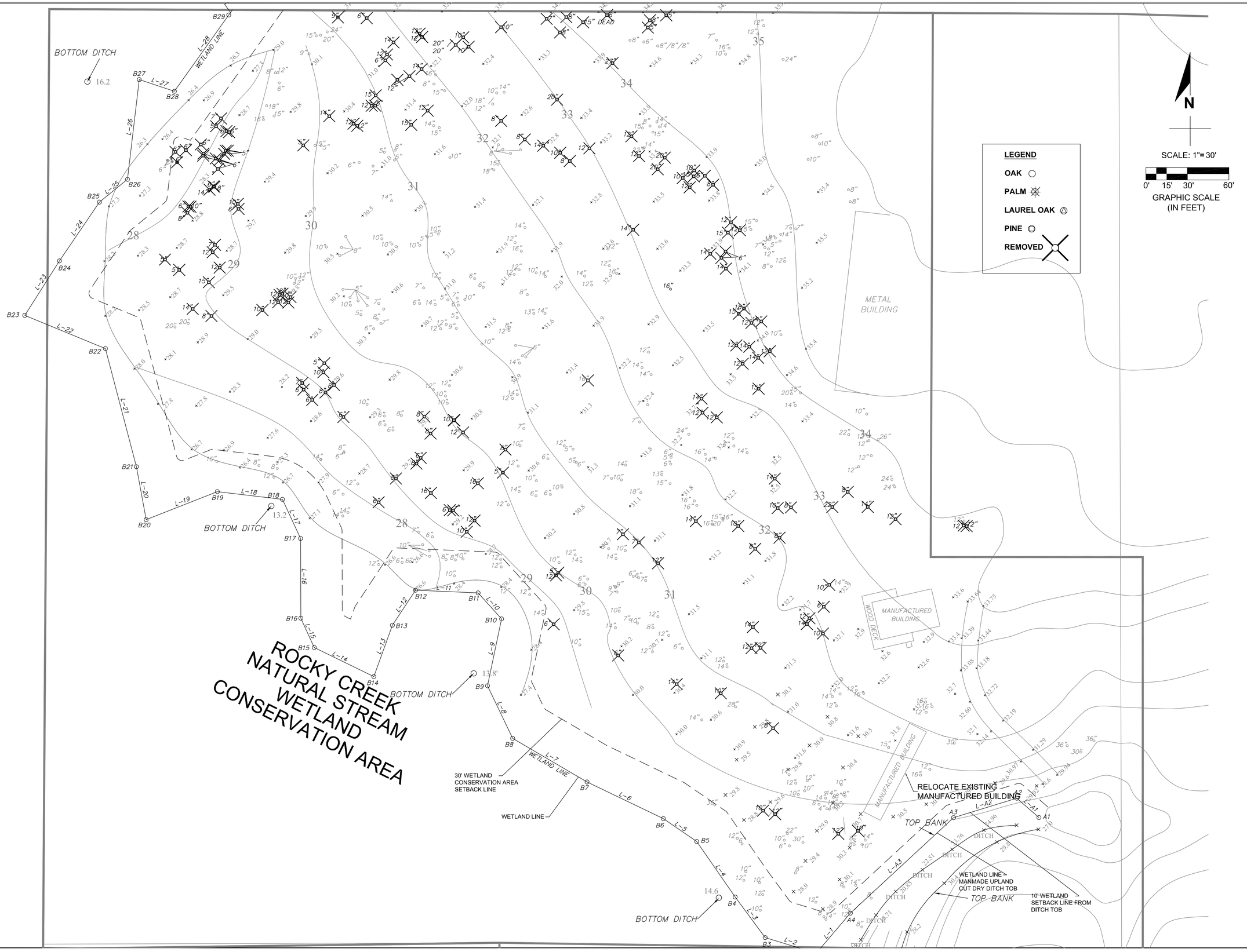
DES. J.C.
DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

BASIN MAPS

SHEET NO:

C-9



TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/28S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-25-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10

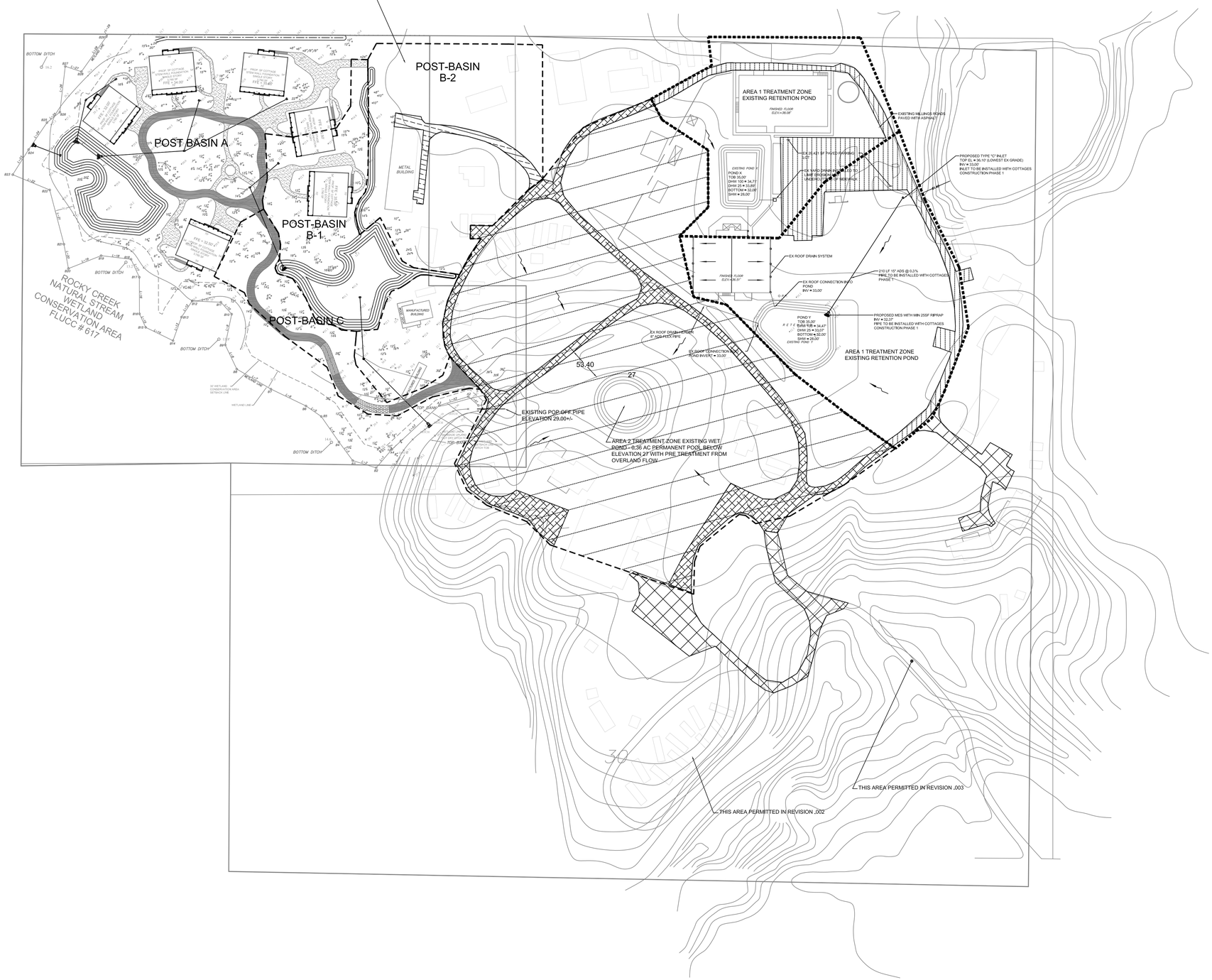
DES. J.C.
DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET NO:

C-10



N

SCALE: 1"= 80'

0' 40' 80' 160'

GRAPHIC SCALE (IN FEET)

AREA 1 - UNAUTHORIZED ACTIVITIES CLOSED OUT WITH SOC FOR PERMIT 1809.004. 2 DRY RETENTION PONDS PROVIDE TREATMENT AND RECOVERY AS REVIEWED AND APPROVED BY SWFWMD COMPLIANCE STAFF

AREA 2 - 6.74 AC TO BE TREATED IN WET POND AND OVERLAND FLOW. WET DETENTION TREATMENT FOR 21 DAY RESIDENCE REQUIRES 0.238 AC-FT PERMANENT POOL. EXISTING PERMANENT POOL = 0.36 AC-FT

AREA 3 - 24,422 SF TOTAL DRAINING INTO CREEK. DIFFERENCE IN LOADING IMPACT IN KG/YR (N = 1.791; P = 0.213). COMPENSATED BY TREATING HISTORIC MAINTENANCE AND REPAIR SHOP AREA BASIN B2.

AREA 4 -5,054 SF TO BE TREATED IN POND B. AREA INCLUDED IN CN CALCULATIONS FOR BASIN B2

TAMPA CIVIL DESIGN
PO BOX NO. 1787
LUTZ, FL 33548-1787
(727) 487-3497 PHONE
(813) 482-9128 FAX

PROJECT:

COTTAGES OF HOPE
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625
STR 13/29S/17E

CLIENT:

HOPE INTERNATIONAL MINISTRIES, INC
11415 HOPE INTERNATIONAL DRIVE
TAMPA, FL 33625

REVISION	DATE
CONCEPTUAL DESIGN	3-8-10
HC RESUB	5-20-10
HC CONST. PLANS SUB	6-30-10
REVISED PER HC & SWFWMD	8-30-10
REVISED PER SWFWMD	10-19-2010

DES. J.C.

DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

IMPAIRED WATERWAY TREATMENT PLAN

SHEET NO:

C-11